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MAINE

OCCUPATIONAL

STAFFING PATTERNS

For

Manufacturing Industries

(Data for Second Quarter 1980)

MAINE DEPARTMENT OF LABOR
Bureau of Employment Security
Division of Economic Analysis and Research

BEST AVAILABLE COPY

MAINE OCCUPATIONAL STAFFING PATTERNS

FOR

MANUFACTURING INDUSTRIES

SECOND QUARTER 1980

This labor market information is developed through a cooperative program with the U.S. Bureau of Labor Statistics and is funded by the U.S. Employment and Training Administration

DIVISION OF ECONOMIC ANALYSIS AND RESEARCH
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PREFACE

We wish to express our thanks to all the employers who supplied the necessary occupational employment data on which the estimates presented herein are based. This publication would not have been possible without their cooperation.

We also wish to express our thanks to the U.S. Department of Labor, both in Washington, D.C. and the regional level in Boston, Massachusetts, for their assistance in this federal-state cooperative effort.

This information is not a final product in and of itself, but will be used in making occupational employment projections to 1990 which will be available in mid 1982.

For further information regarding this report or the projection work now in progress, please write to us or call 207-289-2271.

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DIVISION OF ECONOMIC ANALYSIS AND RESEARCH

December 1981
Augusta, Maine 04330

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INTRODUCTION

This publication is one of a continuing number of reports covering occupational employment for selected industries in Maine. The information in these reports relates to the first part of a "State Comprehensive Manpower Information System" which was defined and mandated by the Manpower Development and Training Act in 1962, the Vocational Education Act of 1963 and as amended in 1968, the Comprehensive Employment and Training Act of 1973, and the Vocational Education Act Amendments of 1976. This federal legislation, coupled with the rapidly expanding public awareness of the need for more vocational training, has resulted in an unparalleled demand for current employment data and projections of future employment requirements by occupation.

The Occupational Employment Statistics (OES) Program has emerged as the system which is expected to supply much of the data leading to a "State Comprehensive Manpower Information System." This program is a federal-state endeavor involving many state employment security agencies throughout the nation, in conjunction with the Employment and Training Administration and the Bureau of Labor Statistics. This OES program consists of three distinct, yet integral components: survey operations, industry-occupation matrices, and projections.

The first part of the OES program consists primarily of collecting occupational employment data by industry through a survey questionnaire mailed to a sample of establishments throughout the State. The sample data received is expanded, using a system of weights and benchmark factors, to produce statewide staffing patterns for the industry. These staffing patterns can then be applied to current or projected estimates of industrial employment to produce estimates of employment by occupation for the State or substate areas.

This publication, a direct result of the survey phase of the OES program, contains the staffing patterns for manufacturing industries. The actual employment data was collected for the week of the 12th of April, May, or June 1980 depending on the industry classification.

Other booklets have already been published covering nearly all wage and salary workers in Maine. Approximately one-third of the State's industries will be surveyed each year, so that the entire economy will be covered every three years. Using this cycle, employers are asked to provide occupational data only once every three years. This insures that no part of the data is over three years old, and that significant changes in the staffing patterns of industries can be identified early, as the trend develops.

The information obtained from these surveys will be used in the second phase of the OES program to construct industry-occupation matrices covering all sectors of our economy. These matrices, in turn, will provide the data that will be used to project occupational requirements and will be one of the basic ingredients of the "Comprehensive Manpower Information System."

FOOD AND KINDRED PRODUCTS
SIC 20
June 1980

This major group includes establishments manufacturing or processing foods and beverages for human consumption and certain related products, such as manufactured ice, chewing gum, vegetable and animal fats and oils, and prepared feeds for animals and fowls.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	10,700	100.00	na	na
Managers and Officers	530	4.95	4	85
Professional Occupations	140	1.31	na	na
Mechanical Engineer	20	0.19	7	10
Chemist	10	0.09	19	4
Biological Scientist	10	0.09	27	5
Systems Analyst, Electronic Data Processing	10	0.09	12	4
Purchasing Agent and/or Buyer	30	0.28	5	13
Accountant and/or Auditor	30	0.28	8	17
Nurse, Professional	10	0.09	3	6
Personnel and/or Labor Relations Specialist	20	0.19	14	12
Technical Occupations	20	0.19	na	na
Computer Programmer	10	0.09	16	4
Science Technicians	10	0.09	na	na
Service Occupations	210	1.96	na	na
Supervisor, Nonworking	10	0.09	4	4
Janitor, Porter, or Cleaner	120	1.12	2	28
Guard or Doorkeeper	50	0.47	14	13
Food Service Worker	30	0.28	27	6
Maintenance and Production Occupations	8,620	80.56	na	na
Supervisor, Nonworking	200	1.87	3	32
Mechanic, Automotive	70	0.65	5	17
Mechanic, Maintenance	90	0.84	11	11
Refrigeration and/or Air Conditioning Mechanic	40	0.37	7	6
Coin Machine Servicer or Vending Machine Repairer	20	0.19	14	6
All Other Mechanics and Repairers	20	0.19	na	na
Truck Driver	220	2.06	6	29
Carpenter	30	0.28	2	9
Cook and/or Cooker (exclude Retort Operator)	50	0.47	6	5
Delivery or Route Worker	570	5.33	4	36
Electrician	40	0.37	5	10
Industrial Truck Operator	190	1.78	4	18
Inspector	400	3.74	2	10
Machinist	30	0.28	11	10

SIC 20 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Maintenance Repairer, General Utility	270	2.52	4	37
Helper, Trades	20	0.19	29	5
Mixer	260	2.43	12	20
Order Filler	110	1.03	10	16
Oven Operator	120	1.12	9	7
Painter, Maintenance	10	0.09	17	3
Production Packager, Hand or Machine	1,340	12.52	5	38
Stationary Boiler Firer	10	0.09	12	5
Stationary Engineer	20	0.19	7	6
Welder and/or Flamecutter	20	0.19	0	4
Drier Operator	20	0.19	0	4
Baker	20	0.19	18	2
Baker Helper	120	1.12	11	4
Boner, Meat	40	0.37	18	3
Butcher, All Around	30	0.28	20	2
Casing Finisher	40	0.37	31	2
Cheesemaker	10	0.09	27	4
Chicken Cutter	80	0.75	6	2
Cooler Room Worker, Meat	10	0.09	17	4
Dairy Processing Equipment Operator	100	0.93	11	13
Dividing Machine Operator and/or Dough Brake Machine Operator	20	0.19	12	2
Feed Pellet Mill Operator	10	0.09	0	4
Flavor Room Worker	20	0.19	20	6
Ingredient Scaler	20	0.19	0	3
Poultry Dresser and/or Eviscerator	860	8.04	14	3
Retort Operator	40	0.37	11	10
Shellfish Shucker	130	1.21	23	6
Smoker	10	0.09	30	2
Tester	90	0.84	6	12
Conveyor Operator or Tender	20	0.19	5	3
Cutting Machine Operator, Food	40	0.37	12	10
Fish Cleaner, Hand and/or Butcher, Fish	630	5.89	5	12
Cannery Worker	490	4.58	14	10
Weigher, Production	40	0.37	27	6
Washer and/or Separator, Food	30	0.28	12	8
Grader, Food and/or Skins	60	0.56	20	4
Equipment Cleaner, Hand	240	2.24	3	18
All Other Skilled Craft and Kindred Workers	50	0.47	na	na
All Other Operatives and Semiskilled Workers	290	2.71	na	na
All Other Laborers and Unskilled Workers	910	8.50	na	na
Clerical Occupations	880	8.22	na	na
Clerical Supervisor, Office or Plant	20	0.19	20	9
Bookkeeping and/or Billing Machine Operator	10	0.09	11	4
Computer Operator	20	0.19	10	9

SIC 20 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (cont.)				
Keypunch Operator	20	0.19	14	8
Accounting Clerk	60	0.56	12	19
Bookkeeper, Hand	50	0.47	7	28
File Clerk	10	0.09	18	4
General Clerk, Office	110	1.03	5	37
Order Clerk	20	0.19	10	8
Payroll and/or Timekeeping Clerk	40	0.37	14	16
Personnel Clerk	10	0.09	9	6
Procurement Clerk	10	0.09	7	5
Secretary	50	0.47	4	27
Statistical Clerk	10	0.09	17	5
Switchboard Operator/Receptionist	20	0.19	7	13
Typist	10	0.09	16	4
All Other Office Clerical Workers	20	0.19	na	na
Production Clerk and/or Coordinator	10	0.09	15	6
Shipping Packer	180	1.68	5	25
Shipping and/or Receiving Clerk	100	0.93	4	23
Weigher, Recordkeeping	20	0.19	17	8
Stock Clerk, Stockroom, Warehouse, or Storage Yard	70	0.65	21	14
All Other Plant Clerical Workers	10	0.09	na	na
Sales Occupations	300	2.80	na	na
Sales Representative, Sales Agent, and/or Sales Associate	180	1.68	9	21
Sales Clerk	120	1.12	11	13

TEXTILE MILL PRODUCTS
SIC 22
April 1980

This major group includes establishments engaged in performing any of the following operations: (1) preparation of fiber and subsequent manufacturing of yarn, thread, braids, twine, and cordage; (2) manufacturing broad woven fabric, narrow woven fabric, knit fabric, and carpets and rugs from yarn; (3) dyeing and finishing fiber, yarn, fabric, and knit apparel; (4) coating, waterproofing, or otherwise treating fabric; (5) the integrated manufacture of knit apparel and other finished articles from yarn; and (6) the manufacture of felt goods, lace goods, nonwoven fabrics, and miscellaneous textiles.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	8,980	100.00	na	na
Managers and Officers	250	2.78	4	89
Professional Occupations	100	1.11	na	na
Industrial Engineer	10	0.11	10	15
Mechanical Engineer	10	0.11	14	11
All Other Engineers	10	0.11	na	na
Chemist	10	0.11	19	11
Purchasing Agent and/or Buyer	10	0.11	7	19
Accountant and/or Auditor	10	0.11	8	21
Nurse, Professional	10	0.11	0	11
Personnel and/or Labor Relations Specialist	10	0.11	11	21
Designer	20	0.22	3	17
Technical Occupations	60	0.67	na	na
Computer Programmer	10	0.11	9	6
Engineering Technician	10	0.11	6	11
Colorist	10	0.11	19	13
All Other Science Technicians	30	0.33	na	na
Service Occupations	190	2.12	na	na
Supervisor, Nonworking	40	0.45	2	9
Janitor, Porter, or Cleaner	70	0.78	5	62
Guard or Doorkeeper	70	0.78	5	28
All Other Service Workers	10	0.11	na	na
Maintenance and Production Occupations	7,790	86.75	na	na
Supervisor, Nonworking	360	4.01	2	66
Mechanic, Maintenance	70	0.78	22	30
Knitting Machine Fixer	30	0.33	0	6
Loom Fixer	190	2.12	8	38
Section Repairer and Setter	100	1.11	22	23
Mechanic, Sewing Machine	10	0.11	25	9
All Other Mechanics and Repairers	50	0.56	na	na
Truck Driver	60	0.67	4	38
Carpenter	20	0.22	14	17

SIC 22 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Drawer-In, Hand	30	0.33	2	26
Electrician	50	0.56	6	36
Industrial Truck Operator	20	0.22	5	23
Inspector	150	1.67	2	47
Machinist	40	0.45	9	30
Maintenance Repairer, General Utility	80	0.89	6	47
Helper, Trades	20	0.22	6	13
Millwright	40	0.45	10	19
Oiler	30	0.33	11	21
Order Filler	30	0.33	15	13
Painter, Maintenance	10	0.11	15	9
Plumber and/or Pipefitter	20	0.22	7	15
Production Packager, Hand or Machine	190	2.12	11	43
Sewing Machine Operator, Special Equipment and/or Automatic Equipment--Garment	20	0.22	7	9
Sewing Machine Operator, Regular Equipment--Nongarment	80	0.89	24	13
Spooler Operator, Automatic	60	0.67	7	17
Stationary Boiler Firer	40	0.45	4	23
Stationary Engineer	10	0.11	5	11
Welder and/or Flamecutter	10	0.11	19	17
Weaver	550	6.12	10	53
Battery Loader	160	1.78	17	23
Beam Dyer Operator and/or Package Dyeing Machine Operator	30	0.33	11	13
Beam Warper Tender, Automatic, and/or Beamer	70	0.78	13	28
Bleach Range Operator and/or Knit Goods Bleacher	10	0.11	0	6
Blending Machine Operator	130	1.45	10	26
Bobbin Sorter	20	0.22	7	9
Bobbin Winder, Machine or Sewing Machine	20	0.22	0	9
Braiding Machine Operator	30	0.33	23	11
Burler	200	2.23	8	28
Calender Operator, Cloth Pressing	20	0.22	5	11
Card Grinder	20	0.22	8	19
Card Tender, Comber Tender, and/or Card Stripper	360	4.01	5	45
Drawing Frame and/or Gill Box Tender	60	0.67	11	26
Cloth Feeder and/or Back Tender	70	0.78	15	21
Cloth Shrinking Machine Operator	20	0.22	28	9
Cloth Trimmer, Machine and/or Shearing Machine Operator	40	0.45	12	13
Cloth or Carpet Winder	40	0.45	27	15
Creeler, Yarn	50	0.56	14	26
Doffer	210	2.34	7	36
Dresser Tender	80	0.89	18	28
Dye Range Operator and/or Spiral Dye Back Tender	30	0.33	37	6

SIC 22 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Dye Reel Operator, Jigger, and/or Padding Machine Operator	10	0.11	2	6
Dye Tub Operator, Random Dyer, and/or Spot Dyeing and Winding Machine Operator	10	0.11	2	6
Harness Builder, Loom Changer, and/or Loom Starter	20	0.22	1	15
Knitting Machine Operator	110	1.22	5	11
Loom Winder Tender	30	0.33	14	9
Mender, Cloth	220	2.45	4	26
Mercerizer Operator and/or Mangle Tender	30	0.33	11	6
Napper Tender	70	0.78	10	26
Needle Felt Making Machine Operator and/or Needle Loom Operator	40	0.45	10	6
Opener Tender and/or Waste Machine Tender	40	0.45	16	13
Picker Tender	110	1.22	8	23
Quilling Machine Operator, Automatic or Non-Automatic	110	1.22	17	19
Slasher Tender	20	0.22	4	11
Slubber Tender	30	0.33	18	11
Smash Hand	40	0.45	21	9
Speeder Tender	30	0.33	30	11
Spinner, Frame	560	6.24	4	49
Tender Frame Operator	30	0.33	15	13
Tester	20	0.22	8	13
Twister Tender	170	1.89	14	30
Warp Tying Machine Tender	60	0.67	10	36
Winder Operator, Automatic	120	1.34	7	30
Yarn Winder	240	2.67	10	36
Cloth Grader	10	0.11	3	9
Folder, Hand	60	0.67	8	11
Folding Machine Operator	10	0.11	20	6
Cutter, Machine	30	0.33	16	13
Drier Operator, Textiles and Rugs	60	0.67	7	26
Mixer and/or Blender, Chemicals and Chemical Products	20	0.22	17	17
All Other Skilled Craft and Kindred Workers	50	0.56	na	na
All Other Operatives and Semiskilled Workers	550	6.12	na	na
All Other Laborers and Unskilled Workers	840	9.35	na	na
Clerical Occupations	530	5.90	na	na
Clerical Supervisor, Office or Plant	20	0.22	4	6
Bookkeeping and/or Billing Machine Operator	10	0.11	10	13
Computer Operator	10	0.11	12	13
Keypunch Operator	10	0.11	4	6
Accounting Clerk	40	0.45	8	19
Bookkeeper, Hand	10	0.11	15	19
File Clerk	10	0.11	0	11

SIC 22 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (cont.)				
General Clerk, Office	100	1.11	5	64
Order Clerk	20	0.22	2	6
Payroll and/or Timekeeping Clerk	30	0.33	7	30
Personnel Clerk	10	0.11	9	19
Receptionist	10	0.11	22	9
Secretary	30	0.33	8	34
Switchboard Operator/Receptionist	10	0.11	10	21
All Other Office Clerical Workers	10	0.11	na	na
Production Clerk and/or Coordinator	40	0.45	2	30
Shipping Packer	70	0.78	9	34
Shipping and/or Receiving Clerk	50	0.56	9	57
Stock Clerk, Stockroom, Warehouse, or Storage Yard	20	0.22	11	23
All Other Plant Clerical Workers	20	0.22	na	na
Sales Occupations	60	0.67	na	na
Sales Representative, Sales Agent, and/or Sales Associate	40	0.45	14	19
Sales Clerk	20	0.22	27	11

BROAD WOVEN FABRIC MILLS, WOOL
(Including Dyeing and Finishing)
SIC 223
April 1980

This industry category includes units primarily engaged in weaving fabrics over 12 inches wide, wholly or chiefly by weight of wool, mohair, or similar animal fibers; dyeing and finishing of wools, tops, or yarn; and shrinking and sponging wool goods for the trade.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	3,850	100.00	na	na
Managers and Officers	100	2.60	1	87
Professional Occupations	50	1.30	na	na
Engineers	20	0.52	na	na
Accountant and/or Auditor	10	0.26	5	27
Personnel and/or Labor Relations Specialist	10	0.26	3	33
Designer	10	0.26	0	27
Technical Occupations	20	0.52	na	na
Service Occupations	50	1.30	na	na
Janitor, Porter, or Cleaner	20	0.52	4	60
Guard or Doorkeeper	20	0.52	4	33
All Other Service Workers	10	0.26	na	na
Maintenance and Production Occupations	3,420	88.83	na	na
Supervisor, Nonworking	170	4.42	2	80
Mechanic, Maintenance	30	0.78	3	40
Loom Fixer	90	2.34	1	73
Section Repairer and Setter	30	0.78	6	33
All Other Mechanics and Repairers	40	1.04	na	na
Truck Driver	20	0.52	1	60
Drawer-In, Hand	20	0.52	2	60
Electrician	30	0.78	2	60
Industrial Truck Operator	10	0.26	6	27
Inspector	70	1.82	2	73
Machinist	10	0.26	1	40
Maintenance Repairer, General Utility	50	1.30	3	60
Helper, Trades	10	0.26	3	27
Millwright	20	0.52	1	33
Oiler	10	0.26	5	20
Plumber and/or Pipefitter	10	0.26	0	20
Production Packager, Hand or Machine	90	2.34	2	60
Sewing Machine Operator, Regular Equipment--Nongarment	20	0.52	1	20
Spooler Operator, Automatic	30	0.78	5	33
Stationary Boiler Firer	30	0.78	3	53
Welder and/or Flamecutter	10	0.26	0	27

SIC 22[illegible] (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Weaver	230	5.97	2	87
Battery Loader	50	1.30	2	33
Beam Dyer Operator and/or Package Dyeing Machine Operator	20	0.52	5	27
Beam Warper Tender, Automatic, and/or Beamer	10	0.26	6	20
Blending Machine Operator	70	1.82	4	40
Bobbin Winder, Machine or Sewing Machine	20	0.52	0	20
Burler	150	3.90	3	47
Calender Operator, Cloth Pressing	20	0.52	5	27
Card Grinder	10	0.26	10	20
Card Tender, Comber Tender, and/or Card Stripper	250	6.49	3	67
Drawing Frame and/or Gill Box Tender	20	0.52	13	27
Cloth Feeder and/or Back Tender	30	0.78	2	27
Cloth Shrinking Machine Operator	10	0.26	3	20
Cloth Trimmer, Machine and/or Shearing Machine Operator	30	0.78	10	27
Cloth or Carpet Winder	10	0.26	0	20
Creeler, Yarn	10	0.26	8	20
Doffer	60	1.56	2	40
Dresser Tender	40	1.04	2	67
Dye Tub Operator, Random Dyer, and/or Spot Dyeing and Winding Machine Operator	10	0.26	2	20
Harness Builder, Loom Changer, and/or Loom Starter	10	0.26	1	40
Mender, Cloth	170	4.42	2	40
Napper Tender	50	1.30	6	60
Picker Tender	70	1.82	5	47
Quilling Machine Operator, Automatic or Non-Automatic	40	1.04	0	33
Spinner, Frame	230	5.97	3	67
Tester	20	0.52	5	20
Twister Tender	50	1.30	1	33
Warp Tying Machine Operator	20	0.52	3	47
Winder Operator, Automatic	70	1.82	3	47
Yarn Winder	70	1.82	3	47
Cloth Grader	10	0.26	3	27
Drier Operator, Textiles and Rugs	40	1.04	4	60
Mixer and/or Blender, Chemicals and Chemical Products	10	0.26	2	27
All Other Skilled Craft and Kindred Workers	20	0.52	na	na
All Other Operatives and Semiskilled Workers	420	10.91	na	na
All Other Laborers and Unskilled Workers	270	7.01	na	na

SIC 223 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations	200	5.19	na	na
Bookkeeping and/or Billing Machine Operator	10	0.26	4	20
Accounting Clerk	20	0.52	1	20
Bookkeeper, Hand	10	0.26	20	40
File Clerk	10	0.26	0	20
General Clerk, Office	30	0.78	4	73
Payroll and/or Timekeeping Clerk	10	0.26	2	40
Personnel Clerk	10	0.26	2	33
Secretary	10	0.26	6	27
Switchboard Operator/Receptionist	10	0.26	3	33
All Other Office Clerical Workers	10	0.26	na	na
Production Clerk and/or Coordinator	30	0.78	1	47
Shipping Packer	10	0.26	3	33
Shipping and/or Receiving Clerk	10	0.26	2	53
Stock Clerk, Stockroom, Warehouse, or Storage Yard	10	0.26	8	20
All Other Plant Clerical Workers	10	0.26	na	na
Sales Occupations	10	0.26	na	na

APPAREL AND OTHER FINISHED PRODUCTS
MADE FROM FABRICS AND SIMILAR MATERIALS
SIC 23 1/
May 1980

This major industry group, known as the cutting-up and needle trades, includes establishments producing clothing and fabricating products by cutting and sewing purchased woven or knit textile fabrics and related materials such as leather, rubberized fabrics, plastics, and furs.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	3,590	100.00	na	na
Managers and Officers	140	3.90	2	95
Professional Occupations	20	0.56	na	na
Designer	10	0.28	11	20
All Other Professional Workers	10	0.28	na	na
Technical Occupations	10	0.28	na	na
Service Occupations	50	1.39	na	na
Janitor, Porter, or Cleaner	30	0.84	3	65
All Other Service Workers	20	0.56	na	na
Maintenance and Production Occupations	3,080	85.79	na	na
Supervisor, Nonworking	70	1.95	5	60
Mechanic, Sewing Machine	20	0.56	1	55
All Other Mechanics and Repairers	10	0.28	na	na
Presser, Hand	20	0.56	11	30
Presser, Machine	70	1.95	3	45
Inspector	110	3.06	2	55
Instructor, Apparel or Textile Machine	10	0.28	2	20
Maintenance Repairer, General Utility	10	0.28	7	20
Production Packager	70	1.95	2	35
Sewing Machine Operator, Regular Equipment--Garment	1,740	48.47	1	80
Sewing Machine Operator, Special and/or Automatic Equipment--Garment	230	6.41	13	60
Bundler	40	1.11	2	40
Cutter, Portable Machine	50	1.39	3	60
Die Cutter and/or Clicking Machine Operator	10	0.28	4	20
Fusing Machine Operator	10	0.28	5	15
Garment Repairer	20	0.56	6	25
Hand Sewer	10	0.28	17	15
Shaper and Presser	20	0.56	7	25
Spot Cleaner	10	0.28	6	25
Spreader	70	1.95	2	60
Thread Trimmer	50	1.39	8	55
Work Distributor	40	1.11	4	25
Marker	10	0.28	10	25
Cutter, Hand	10	0.28	15	20

SIC 23 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Turner	30	0.84	4	45
Folder, Hand	120	3.34	3	25
Soabar Operator	20	0.56	0	15
All Other Skilled Craft and Kindred Workers	10	0.28	na	na
All Other Operatives and Semiskilled Workers	150	4.18	na	na
All Other Laborers and Unskilled Workers	40	1.11	na	na
Clerical Occupations	280	7.80	na	na
Clerical Supervisor, Office or Plant	10	0.28	11	20
Computer Operator	10	0.28	4	15
File Clerk	10	0.28	8	25
General Clerk, Office	20	0.56	6	45
Order Clerk	10	0.28	4	15
Payroll and/or Timekeeping Clerk	20	0.56	1	45
All Other Office Clerical Workers	120	3.34	na	na
Shipping Packer	50	1.39	5	70
Shipping and/or Receiving Clerk	10	0.28	5	55
Stock Clerk, Stockroom, Warehouse, or Storage Yard	10	0.28	11	35
All Other Plant Clerical Workers	10	0.28	na	na
Sales Occupations	10	0.28	na	na

1/ Excludes SIC 239 - Miscellaneous Fabricated Textile Products.

LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
SIC 24
May 1980 1/

This major group includes logging camps engaged in cutting timber and pulpwood, merchant sawmills, lath mills, shingle mills, cooperage stock mills, planing mills, and plywood mills and veneer mills engaged in producing lumber and wood basic materials; and establishments engaged in manufacturing finished articles made entirely or mainly of wood or wood substitutes.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	12,970	100.00	na	na
Managers and Officers	770	5.94	4	65
Professional Occupations	130	1.00	na	na
Industrial Engineer	10	0.08	24	1
Mechanical Engineer	10	0.08	20	3
Purchasing Agent and/or Buyer	30	0.23	13	5
Accountant and/or Auditor	60	0.46	9	12
Personnel and/or Labor Relations Specialist	10	0.08	14	3
All Other Professional Workers	10	0.08	na	na
Technical Occupations	110	0.85	na	na
Drafter	20	0.15	17	3
Timber Cruiser	70	0.54	10	7
All Other Technicians	20	0.15	na	na
Service Occupations	380	2.93	na	na
Supervisor, Nonworking	10	0.08	26	1
Janitor, Porter, or Cleaner	210	1.62	8	19
Guard or Doorkeeper	100	0.77	11	8
Food Service Worker	60	0.46	12	7
Maintenance and Production Occupations	10,860	83.73	na	na
Supervisor, Nonworking	410	3.16	4	29
Mechanic, Automotive	110	0.85	14	12
Engineering Equipment Mechanic	100	0.77	25	6
Mechanic, Maintenance	150	1.16	19	10
All Other Mechanics and Repairers	20	0.15	na	na
Truck Driver	490	3.78	4	48
Cabinetmaker	60	0.46	19	3
Carpenter	190	1.4	9	7
Crane, Derrick, and/or Hoist Operator	10	0.08	16	2
Delivery or Route Worker	10	0.08	20	2
Electrician	50	0.39	7	5
Heavy Equipment Operator	170	1.31	8	13
Industrial Truck Operator	210	1.62	4	24
Inspector	90	0.69	14	7
Machinist	70	0.54	9	5
Maintenance Repairer, General Utility	230	1.77	7	22

SIC 24 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Helper, Trades	100	0.77	12	9
Millwright	50	0.39	21	3
Oiler	10	0.08	20	1
Plumber and/or Pipefitter	10	0.08	17	1
Production Packager, Hand or Machine	350	2.70	20	9
Stationary Boiler Firer	110	0.85	7	5
Stationary Engineer	10	0.08	41	1
Logging Tractor Operator	980	7.56	4	43
Welder and/or Flamecutter	10	0.08	18	2
Power Barker Operator	160	1.23	8	21
Band Scroll Saw Operator	20	0.15	31	1
Boring Machine Operator	40	0.31	32	3
Carrier Driver	10	0.08	19	2
Chain Offbearer, Lumber	240	1.85	8	14
Chipper	60	0.46	8	9
Choker Seiter, Lumber	40	0.31	24	2
Cut Off Saw Operator, Lumber	220	1.70	16	16
Cutt Off Sawyer, Log	30	0.23	13	3
Dowel Machine Operator	80	0.62	21	3
Edger, Automatic and/or Pony	110	0.85	5	17
Faller and/or Bucker	1,400	10.79	5	52
Gang Sawyer	20	0.15	18	2
Head Loader	10	0.08	22	2
Head Sawyer	170	1.31	5	26
Kiln Operator, Lumber	20	0.15	13	5
Lathe Operator, Wood	70	0.54	21	3
Loader, Car and Truck	70	0.54	15	6
Log Handling Equipment Operator	160	1.23	8	17
Log Inspector, Grader, and/or Scaler	210	1.62	6	23
Lumber Grader	120	0.93	9	12
Lumber Straightener	70	0.54	11	7
Machine Setter, Woodworking	120	0.93	16	8
Wood Machinist	90	0.69	16	7
Nailing Machine Operator	60	0.46	15	4
Off Bearer, Wooden Parts	130	1.00	15	5
Pond Worker, Lumber	20	0.15	16	2
Resawyer	100	0.77	16	11
Ripsaw Operator	110	0.85	12	12
Sander, Wood	110	0.85	15	9
Saw Filer	100	0.77	6	13
Shaper and/or Router Operator	100	0.77	26	2
Kiln Stacker Operator	10	0.08	34	1
Tenoner Operator	10	0.08	32	2
Trim Saw Operator	120	0.93	11	15
Variety Saw Operator	70	0.54	14	7
Veneer Lathe Operator	40	0.31	26	1
Woodworking Machine Operator	290	2.24	10	14
Painter, Production	90	0.69	9	10
Conveyor Operator or Tender	10	0.08	33	1

SIC 24 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Planer Operator	80	0.62	9	12
Sorter Operator, Green Lumber	20	0.15	46	1
Assembler	190	1.46	9	10
All Other Skilled Craft and Kindred Workers	90	0.69	na	na
All Other Operatives and Semiskilled Workers	270	2.08	na	na
All Other Laborers and Unskilled Workers	1,300	10.02	na	na
Clerical Occupations	630	4.86	na	na
Clerical Supervisor, Office or Plant	10	0.08	37	2
Accounting Clerk	80	0.62	11	12
Bookkeeper, Hand	120	0.93	5	26
General Clerk, Office	150	1.16	6	28
Payroll and/or Timekeeping Clerk	20	0.15	9	5
Personnel Clerk	10	0.08	26	2
Procurement Clerk	10	0.08	31	1
Receptionist	10	0.08	23	1
Secretary	80	0.62	8	15
Statistical Clerk	10	0.08	46	1
Switchboard Operator/Receptionist	10	0.08	20	3
Typist	10	0.08	32	1
All Other Office Clerical Workers	10	0.08	na	na
Production Clerk and/or Coordinator	10	0.08	21	2
Shipping Packer	60	0.46	11	8
Shipping and/or Receiving Clerk	20	0.15	13	3
Stock Clerk, Stockroom, Warehouse, or Storage Yard	10	0.08	19	2
Sales Occupations	90	0.69	na	na
Sales Representative, Sales Agent, and/or Sales Associate	70	0.54	11	10
Sales Clerks	20	0.15	22	3

1/ The reference date for SIC 24 is May 1980, except for SIC 241. Because of the "mud season" the reference date for SIC 241 was changed to June 1980.

LOGGING CAMPS AND LOGGING CONTRACTORS
SIC 241
June 1980

This industry category includes logging camps and logging contractors primarily engaged in cutting timber and in producing rough, round, hewn, or riven primary forest or wood raw materials.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	4,250	100.00	na	na
Managers and Officers	330	7.76	8	53
Professional Occupations	30	0.71	na	na
Accountant and/or Auditor	20	0.47	16	7
All Other Professional Occupations	10	0.24	na	na
Technical Occupations	90	2.12	na	na
Drafter	10	0.24	34	2
Timber Cruiser	70	1.65	10	14
All Other Technical Workers	10	0.24	na	na
Service Occupations	150	3.53	na	na
Janitor, Porter, or Cleaner	50	1.18	10	9
Guard or Doorkeeper	40	0.94	23	5
Food Service Worker	60	1.41	12	14
Maintenance and Production Occupations	3,460	81.41	na	na
Supervisor, Nonworking	140	3.29	6	17
Mechanic, Automotive	90	2.12	17	17
Engineering Equipment Mechanic	100	2.35	25	11
Truck Driver	330	7.76	4	61
Heavy Equipment Operator	150	3.53	9	22
Helper, Trades	40	0.94	19	3
Logging Tractor Operator	920	21.65	4	76
Choaker Setter, Lumber	40	0.94	24	3
Faller and/or Bucker	1,320	31.06	5	91
Head Loader	10	0.24	22	3
Log Handling Equipment Operator	30	0.71	12	9
Log Inspector, Grader, and/or Scaler	120	2.82	8	16
All Other Skilled Craft and Kindred Workers	20	0.47	na	na
All Other Operatives and Semiskilled Workers	30	0.71	na	na
All Other Laborers and Unskilled Workers	120	2.82	na	na
Clerical Occupations	180	4.24	na	na
Accounting Clerk	60	1.41	13	13
Bookkeeper, Hand	50	1.18	8	23
General Clerk, Office	50	1.18	9	22
Secretary	20	0.47	14	6
Sales Occupations	10	0.24	na	na

SAWMILLS AND PLANING MILLS
SIC 242
May 1980

This industry category includes units primarily engaged in sawing rough lumber and timber from logs and bolts; resawing cants and flitches into lumber; planing; sawing lath and railroad ties; and making wood chips, hardwood dimension lumber, hardwood flooring, excelsior, wood shingles, and cooperage stock.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	3,020	100.00	na	na
Managers and Officers	190	6.29	5	72
Professional Occupations	40	1.32	na	na
Purchasing Agent and/or Buyer	10	0.33	16	7
Accountant and/or Auditor	20	0.66	10	20
All Other Professional Workers	10	0.33	na	na
Service Occupations	90	2.98	na	na
Janitor, Porter, or Cleaner	50	1.66	9	28
Guard or Doorkeeper	40	1.32	14	15
Maintenance and Production Occupations	2,530	83.77	na	na
Supervisor, Nonworking	90	2.98	6	37
Mechanic, Automotive	10	0.33	20	6
Mechanic, Maintenance	50	1.66	14	21
Truck Driver	90	2.98	9	37
Carpenter	20	0.66	19	13
Crane, Derrick, and/or Hoist Operator	10	0.33	19	4
Delivery or Route Worker	10	0.33	25	4
Electrician	10	0.33	15	6
Heavy Equipment Operator	10	0.33	21	4
Industrial Truck Operator	90	2.98	7	48
Inspector	30	0.99	16	11
Machinist	10	0.33	18	4
Maintenance Repairer, General Utility	110	3.64	8	46
Helper, Trades	30	0.99	22	11
Millwright	20	0.66	23	4
Production Packager, Hand or Machine	50	1.66	24	14
Stationary Boiler Firer	30	0.99	12	6
Logging Tractor Operator	50	1.66	20	15
Power Barker Operator	90	2.98	4	58
Carrier Driver	10	0.33	25	4
Chain Offbearer, Lumber	180	5.96	9	44
Chipper	40	1.32	9	28
Cut Off Saw Operator, Lumber	50	1.66	17	18
Cut Off Sawyer, Log	10	0.33	16	4
Edger, Automatic and/or Pony	90	2.98	5	61
Faller and/or Bucker	50	1.66	19	14
Head Sawyer	110	3.64	4	70
Kiln Operator, Lumber	10	0.33	10	10

SIC 242 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Loader, Car and Truck	60	1.99	17	17
Log Handling Equipment Operator	100	3.31	12	35
Log Inspector, Grader, and/or Scaler	50	1.66	8	38
Lumber Grader	90	2.98	7	44
Lumber Straightener	70	2.32	12	28
Machine Setter, Woodworking	20	0.66	29	7
Wood Machinist	10	0.33	49	4
Nailing Machine Operator	20	0.66	25	7
Off Bearer, Wooden Parts	60	1.99	18	13
Pond Worker, Lumber	20	0.66	16	6
Resawyer	30	0.99	14	18
Ripsaw Operator	40	1.32	16	17
Sander, Wood	20	0.66	29	6
Saw Filer	50	1.66	6	34
Trim Saw Operator	70	2.32	7	48
Variety Saw Operator	10	0.33	29	4
Woodworking Machine Operator	40	1.32	23	13
Painter, Production	10	0.33	32	6
Planer Operator	60	1.99	12	34
Sorter Operator, Green Lumber	20	0.66	46	4
Assembler	10	0.33	30	6
All Other Skilled Craft and Kindred Workers	10	0.33	na	na
All Other Operatives and Semiskilled Workers	60	1.99	na	na
All Other Laborers and Unskilled Workers	240	7.95	na	na
Clerical Occupations	140	4.64	na	na
Accounting Clerk	10	0.33	21	10
Bookkeeper, Hand	30	0.99	12	24
General Clerk, Office	50	1.66	11	34
Secretary	30	0.99	12	21
All Other Office Clerical Workers	10	0.33	na	na
Shipping Packer	10	0.33	26	7
Sales Occupations	30	0.99	na	na
Sales Representative, Sales Agent, and/or Sales Associate	30	0.99	20	20

FURNITURE AND FIXTURES
SIC 25
June 1980

This major group includes establishments engaged in manufacturing household, office, public building, and restaurant furniture; and office and store fixtures.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	1,010	100.00	na	na
Managers and Officers	50	4.95	9	94
Professional Occupations	20	1.98	na	na
Purchasing Agent and/or Buyer	10	0.99	0	24
All Other Professional Workers	10	0.99	na	na
Technical Occupations	40	3.96	na	na
Drafter	30	2.97	0	18
All Other Technical Workers	10	0.99	na	na
Service Occupations	10	0.99	na	na
Janitor, Porter, or Cleaner	10	0.99	12	35
Maintenance and Production Occupations	790	78.22	na	na
Supervisor, Nonworking	40	3.96	6	47
Mechanic, Maintenance	10	0.99	0	18
Truck Driver	10	0.99	19	24
Cabinetmaker	60	5.94	25	35
Industrial Truck Operator	10	0.99	0	24
Inspector	20	1.98	24	24
Maintenance Repairer, General Utility	10	0.99	23	18
Production Packager, Hand or Machine	10	0.99	27	18
Furniture Finisher	30	2.97	5	18
Boring Machine Operator, Wood	10	0.99	13	29
Cut Off Saw Operator, Lumber	10	0.99	11	29
Ripsaw Operator	20	1.98	5	24
Rubber	20	1.98	4	18
Sander, Wood	50	4.95	11	41
Shaper and/or Router Operator	10	0.99	16	29
Tenoner Operator	10	0.99	0	18
Woodworking Machine Operator	50	4.95	17	47
Painter, Production	20	1.98	16	29
Gluer and/or Cementer, Hand	10	0.99	4	18
Cushion Maker	10	0.99	35	18
Assembler	90	8.91	16	59
All Other Skilled Craft and Kindred Workers	40	3.96	na	na
All Other Operatives and Semiskilled Workers	150	14.85	na	na
All Other Laborers and Unskilled Workers	90	8.91	na	na

SIC 25 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations	90	8.91	na	na
Bookkeeper, Hand	10	0.99	22	29
General Clerk, Office	10	0.99	17	41
Secretary	10	0.99	11	35
All Other Office Clerical Workers	30	2.97	na	na
Production Clerk and/or Coordinator	10	0.99	2	18
Shipping Packer	10	0.99	15	29
Shipping and/or Receiving Clerk	10	0.99	10	35
Sales Occupations	10	0.99	na	na
Sales Representative, Sales Agent, and/or Sales Associate	10	0.99	17	18

PAPER AND ALLIED PRODUCTS
SIC 26
April 1980

This major group includes the manufacture of pulps from wood and other cellulose fibers, and from rags; the manufacture of paper and paperboard; and the manufacture of paper and paperboard into converted products such as paper coated off the paper machine, paper bags, paper boxes, and envelopes.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	18,350	100.00	na	na
Managers and Officers	630	3.43	8	100
Professional Occupations	740	4.03	na	na
Chemical Engineer	70	0.38	3	31
Electrical or Electronic Engineer	50	0.27	4	37
Industrial Engineer	30	0.16	7	26
Mechanical Engineer	120	0.65	7	49
All Other Engineers	30	0.16	na	na
Chemist	50	0.27	3	23
All Other Natural and Mathematical Scientists	60	0.33	na	na
Systems Analyst, Electronic Data Processing	20	0.11	1	14
Purchasing Agent and/or Buyer	60	0.33	9	49
Accountant and/or Auditor	100	0.54	12	57
Nurse, Professional	50	0.27	10	34
Personnel and/or Labor Relations Specialist	80	0.44	8	40
All Other Professional Workers	20	0.11	na	na
Technical Occupations	350	1.91	na	na
Computer Programmer	20	0.11	9	17
Drafter	40	0.22	4	31
All Other Engineering Technicians	80	0.44	na	na
Science Technician	80	0.44	1	14
All Other Technical Workers	130	0.71	na	na
Service Occupations	370	2.02	na	na
Supervisor, Nonworking	10	0.05	15	14
Janitor, Porter, or Cleaner	240	1.31	3	46
Guard or Doorkeeper	120	0.65	14	37

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occupations	14,990	81.69	na	na
Supervisor, Nonworking	750	4.09	3	69
Mechanic, Automotive	90	0.49	7	37
Mechanic, Maintenance	310	1.69	5	37
All Other Mechanics and Repairers	30	0.16	na	na
Truck Driver	150	0.82	6	60
Carpenter	30	0.16	5	23
Crane, Derrick, and/or Hoist Operator	90	0.49	12	23
Delivery or Route Worker	20	0.11	17	17
Electrician	510	2.78	4	54
Heavy Equipment Operator	90	0.49	5	26
Rigger	60	0.33	0	9
Industrial Truck Operator	560	3.05	5	71
Inspector	80	0.44	9	17
Instrument Repairer	160	0.87	7	37
Machinist	300	1.64	3	51
Maintenance Repairer, General Utility	260	1.42	33	29
Helper, Trades	180	0.98	6	17
Millwright	740	4.03	7	34
Oiler	150	0.82	4	43
Order Filler	60	0.33	7	14
Painter, Maintenance	70	0.38	11	40
Plumber and/or Pipefitter	410	2.23	6	43
Press Operator and/or Plate Printer	20	0.11	11	20
Production Packager, Hand or Machine	230	1.25	16	40
Sheet Metal Worker	50	0.27	2	23
Stationary Boiler Firer	170	0.93	10	37
Stationary Engineer	140	0.76	5	34
Welder and/or Flamecutter	80	0.44	3	31
Back Tender	370	2.02	3	49
Power Barker Operator	40	0.22	17	26
Beater Engineer	110	0.60	6	31
Beater	150	0.82	9	40
Bleacher Operator, Pulp	60	0.33	5	23
Box Maker, Paperboard	10	0.05	38	11
Carton Forming Machine Operator	20	0.11	5	11
Chemical Operator A	40	0.22	9	20
Chemical Operator B	50	0.27	13	20
Chemical Operator Helper	50	0.27	8	14
Chipper	70	0.38	11	26
Coater Operator, Off Machine	190	1.04	7	26
Coating Mixer Tender	120	0.65	3	23
Combiner Operator	20	0.11	10	11
Corrugator Knife Operator	10	0.05	0	9
Corrugator Operator	10	0.05	0	9
Cylinder Machine Tender	40	0.22	29	11
Decker Operator	30	0.16	15	17
Die Cutter and/or Clicking Machine Operator	10	0.05	18	17
Die Mounter	10	0.05	0	11

SIC 26 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Digester Operator	60	0.33	17	23
Digester Operator Helper	40	0.22	28	17
Evaporator Operator, Paper	60	0.33	17	23
Flexo-Folder-Gluer Operator	20	0.11	0	11
Folding Machine Operator, Paper	290	1.58	13	9
Fourdrinier Machine Tender	310	1.69	3	49
Wood Grinder Operator	160	0.87	12	29
Layboy Tender	30	0.16	14	9
Log Inspector, Grader, and/or Scaler	30	0.16	20	20
Machine Setter, Paper Goods	100	0.55	14	20
Paper Reel Operator and/or Rewinder Operator	370	2.02	8	40
Power Press Tender	20	0.11	21	11
Printer-Slotter Operator	10	0.05	0	9
Printer-Slotter Feeder	20	0.11	0	9
Pulp Refiner Operator	40	0.22	13	20
Pulper	70	0.38	17	29
Recovery Operator, Papermaking	80	0.44	9	23
Scorer	10	0.05	5	11
Slitter-Creaser-Slotter Operator	10	0.05	0	9
Slitting Machine Operator	20	0.11	21	20
Stapling Machine Operator	10	0.05	5	17
Supercalender Operator	190	1.04	5	23
Taping Machine Operator	40	0.22	34	14
Tester	250	1.36	3	49
Waxing Machine Operator	10	0.05	0	9
Wet Machine Tender	140	0.76	8	14
Winder, Paper Machine	280	1.53	5	43
Conveyor Operator/Tender	40	0.22	12	17
Brown Stock Washer and/or Blow Pit Operator	30	0.16	14	17
Fourth Hand and/or Fifth Hand, Paper Machine	590	3.22	3	46
Baling Machine Operator	50	0.27	30	26
Chief Operator	30	0.16	14	17
Cutter, Machine	140	0.76	26	23
Embossing, Stamping, and/or Marking Machine Operator	50	0.27	21	9
Assembler	70	0.38	20	9
Mixer and/or Blender, Chemicals and Chemical Products	40	0.22	23	20
All Other Skilled Craft and Kindred Workers	180	0.98	na	na
All Other Operatives and Semiskilled Workers	1,280	6.98	na	na
All Other Laborers and Unskilled Workers	2,620	14.28	na	na
Clerical Occupations	1,200	6.54	na	na
Clerical Supervisor, Office or Plant	40	0.22	8	31

SIC 26 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (cont.)				
Bookkeeping and/or Billing Machine Operator	20	0.11	4	17
Computer Operator	30	0.16	6	29
Keypunch Operator	40	0.22	14	31
All Other Office Machine Operators	10	0.05	na	na
Stenographer	10	0.05	0	9
Accounting Clerk	80	0.44	10	49
Bookkeeper, Hand	20	0.11	3	17
File Clerk	10	0.05	0	17
General Clerk, Office	80	0.44	8	49
Order Clerk	60	0.33	6	31
Payroll and/or Timekeeping Clerk	50	0.27	6	46
Personnel Clerk	20	0.11	8	43
Procurement Clerk	20	0.11	9	29
Secretary	140	0.76	4	57
Statistical Clerk	10	0.05	11	11
Switchboard Operator	10	0.05	10	9
Switchboard Operator/Receptionist	20	0.11	4	49
Typist	100	0.55	8	34
All Other Office Clerical Workers	40	0.22	na	na
Production Clerk and/or Coordinator	70	0.38	4	54
Shipping Packer	80	0.44	10	23
Shipping and/or Receiving Clerk	90	0.49	3	66
Weigher, Record Keeping	20	0.11	0	49
Stock Clerk, Stockroom, Warehouse, or Storage Yard	100	0.55	7	54
All Other Plant Clerical Workers	30	0.16	na	na
Sales Occupations	70	0.38	na	na
Sales Representative, Sales Agent, and/or Sales Associate	70	0.38	10	31

PRINTING, PUBLISHING, AND ALLIED INDUSTRIES
SIC 27
May 1980

This major group includes establishments engaged in printing by one or more of the common processes, such as letterpress, lithography, gravure, or screen; and those establishments which perform services for the printing trade, such as bookbinding, typesetting, engraving, photoengraving, and electrotyping. This major group also includes establishments engaged in publishing newspapers, books, and periodicals, regardless of whether or not they do their own printing.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	3,550	100.00	na	na
Managers and Officers	330	9.30	3	87
Professional Occupations	510	14.37	na	na
Photographer	30	0.85	7	8
Commercial Artist	30	0.85	8	12
Writer and/or Editor	180	5.07	4	36
Librarian, Professional	10	0.28	11	4
Reporter and/or Correspondent	230	6.48	4	29
Estimator, Printing Services	10	0.28	10	7
All Other Professional Workers	20	0.56	na	na
Technical Occupations	30	0.85	na	na
Computer Programmer	10	0.28	8	4
Drafter	20	0.56	19	10
Service Occupations	70	1.97	na	na
Janitor, Porter, or Cleaner	70	1.97	5	19
Maintenance and Production Occupations	1,600	45.07	na	na
Supervisor, Nonworking	40	1.13	8	18
All Mechanics and Repairers	10	0.28	na	na
Developer and/or Projection Printer	10	0.28	17	4
Delivery or Route Worker	30	0.85	9	20
Electrician	10	0.28	10	4
Production Packager, Hand or Machine	30	0.85	12	4
Offset Lithographic Press Operator, Sheet, Roll, or Web Fed	220	6.20	3	53
Platemaker	30	0.85	8	17
Stripper	70	1.97	6	25
Camera Operator, Printing	80	2.25	12	34
Strike-On Machine Operator	10	0.28	32	3
Hand Compositor	70	1.97	13	24
Imposer and Makeup Arranger	10	0.28	25	6
Line Casting Machine Operator	40	1.13	9	16
Line Casting Machine Tender	10	0.28	22	8
Pasteup Man or Woman	100	2.82	9	18
Phototypesetting Machine Keyboard Operator	60	1.69	8	6
Phototypesetting Machine Monitor	10	0.28	6	3

SIC 27 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Phototypesetter Operator	50	1.41	13	11
Proofreader, Composed Copy	70	1.97	7	30
Photoengraver	20	0.56	14	9
Letter Press Operator, Sheet, Roll, or Web Fed	120	3.38	6	30
Press Assistant and/or Feeder	40	1.13	14	9
Mailer	60	1.69	11	8
Cutter, Machine	10	0.28	20	3
Bookbinder, Hand	10	0.28	33	3
Bookbinder, Machine	60	1.69	21	10
Bindery Worker, Assembly	70	1.97	9	18
Bindery Worker, Stitching	20	0.56	9	8
All Other Bindery Workers	50	1.41	na	na
All Other Skilled Craft and Kindred Workers	50	1.41	na	na
All Other Operatives and Semiskilled Workers	30	0.85	na	na
All Other Laborers and Unskilled Workers	100	2.82	na	na
Clerical Occupations	740	20.83	na	na
Clerical Supervisor, Office or Plant	20	0.56	3	3
Computer Operator	10	0.28	9	7
Keypunch Operator	10	0.28	16	4
Accounting Clerk	10	0.28	19	5
Bookkeeper, Hand	80	2.25	6	50
File Clerk	20	0.56	5	3
General Clerk, Office	110	3.09	7	39
Order Clerk	10	0.28	12	3
Payroll and/or Timekeeping Clerk	10	0.28	3	4
Secretary	60	1.69	5	31
Switchboard Operator	10	0.28	5	3
Switchboard Operator/Receptionist	10	0.28	13	7
Messenger	10	0.28	7	3
Typist	60	1.69	7	32
Circulation Clerk	20	0.56	12	6
Classified Ad Clerk, Newspaper	10	0.28	3	4
Customer Service Representative, Printing and Publishing	10	0.28	11	3
Telephone Ad Taker, Newspaper	30	0.85	5	5
All Other Office Clerical Workers	100	2.81	na	na
Production Clerk and/or Coordinator	10	0.28	8	4
Shipping Packer	110	3.10	10	6
Shipping and/or Receiving Clerk	20	0.56	10	13
Sales Occupations	270	7.61	na	na
Sales Representative, Sales Agent, and/or Sales Associate	250	7.04	3	50
All Other Sales Workers	20	0.56	na	na

NEWSPAPERS: PUBLISHING, PUBLISHING AND PRINTING
SIC 271
May 1980

This industry category includes establishments primarily engaged in publishing newspapers, or in publishing and printing newspapers. These establishments carry on the various operations necessary for issuing newspapers, including the gathering of news and the preparation of editorials and advertisements, but may or may not perform their own printing.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	2,240	100.00	na	na
Managers and Officers	160	7.14	4	83
Professional Occupations	460	20.54	na	na
Photographer	30	1.34	7	17
Commercial Artist	20	0.89	11	17
Writer and/or Editor	160	7.14	4	63
Librarian, Professional	10	0.45	11	10
Reporter and/or Correspondent	230	10.27	5	63
All Other Professional Workers	10	0.45	na	na
Technical Occupations	10	0.45	na	na
Computer Programmer	10	0.45	8	10
Service Occupations	60	2.68	na	na
Janitor, Porter, or Cleaner	60	2.68	6	24
Maintenance and Production Occupations	790	35.27	na	na
Supervisor, Nonworking	30	1.34	9	22
Delivery or Route Worker	20	0.89	15	27
Electrician	10	0.45	9	7
Production Packager, Hand or Machine	30	1.34	14	7
Offset Lithographic Press Operator, Sheet, Roll, or Web Fed	50	2.23	10	39
Platemaker	20	0.89	11	17
Stripper	20	0.89	11	17
Camera Operator, Printing	20	0.89	9	29
Strike-On Machine Operator	10	0.45	32	7
Hand Compositor	40	1.79	22	29
Imposer and Makeup Arranger	10	0.45	35	10
Line Casting Machine Operator	10	0.45	29	7
Line Casting Machine Tender	10	0.45	32	10
Pasteup Man or Woman	80	3.57	10	32
Phototypesetting Machine Keyboard Operator	50	2.23	8	7
Phototypesetting Machine Monitor	10	0.45	6	7
Phototypesetter Operator	30	1.34	21	12
Proofreader, Composed Copy	40	1.79	10	37
Photoengraver	10	0.45	15	7

SIC 271 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Letter Press Operator, Sheet, Roll, or Web Fed	80	3.57	8	27
Press Assistant and/or Feeder	10	0.45	13	10
Mailer	60	2.68	11	17
All Other Skilled Craft and Kindred Workers	30	1.34	na	na
All Other Operatives and Semiskilled Workers	40	1.79	na	na
All Other Laborers and Unskilled Workers	70	3.13	na	na
Clerical Occupations	540	24.11	na	na
Clerical Supervisor, Office or Plant	20	0.89	3	7
Computer Operator	10	0.45	10	15
Keypunch Operator	10	0.45	16	10
Bookkeeper, Hand	30	1.34	13	39
File Clerk	20	0.89	5	7
General Clerk, Office	80	3.57	9	51
Payroll and/or Timekeeping Clerk	10	0.45	3	10
Secretary	30	1.34	5	27
Switchboard Operator	10	0.45	5	7
Switchboard Operator/Receptionist	10	0.45	17	10
Messenger	10	0.45	7	7
Typist	30	1.34	11	39
Circulation Clerk	20	0.89	14	12
Classified Ad Clerk, Newspaper	20	0.89	3	10
Telephone Ad Taker	30	1.34	5	12
All Other Office Clerical Workers	90	4.02	na	na
Production Clerk and/or Coordinator	10	0.45	2	7
Shipping Packer	100	4.46	10	7
Sales Occupations	220	9.82	na	na
Sales Representative, Sales Agent, and/or Sales Associate	200	8.93	4	71
All Other Sales Workers	20	0.89	na	na

CHEMICALS AND ALLIED PRODUCTS
SIC 28
June 1980

This major group includes establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	1,420	100.00	na	na
Managers and Officers	110	7.75	5	88
Professional Occupations	100	7.04	na	na
Chemical Engineer	10	0.70	2	20
Mechanical Engineer	10	0.70	7	12
All Other Engineers	10	0.70	na	na
Chemist	30	2.11	3	28
All Other Natural and Mathematical Scientists	10	0.70	na	na
Accountant and/or Auditor	10	0.70	3	16
All Other Professional Workers	20	1.41	na	na
Technical Occupations	40	2.82	na	na
Service Occupations	20	1.41	na	na
Janitor, Porter, or Cleaner	10	0.70	11	24
Guard or Doorkeeper	10	0.70	0	12
Maintenance and Production Occupations	1,000	70.42	na	na
Supervisor, Nonworking	70	4.93	4	44
Mechanic, Maintenance	20	1.41	0	12
Truck Driver	10	0.70	18	20
Carpenter	10	0.70	0	12
Electrician	20	1.41	4	16
Industrial Truck Operator	40	2.82	4	28
Machinist	10	0.70	3	12
Maintenance Repairer, General Utility	60	4.23	5	44
Helper, Trades	20	1.41	11	12
Plumber and/or Pipefitter	10	0.70	10	20
Production Packager, Hand or Machine	70	4.93	12	24
Welder and/or Flamecutter	20	1.41	5	16
Chemical Operator A	20	1.41	24	12
Chemical Operator B	30	2.11	6	12
Chemical Operator Helper	30	2.11	30	12
Drier Operator, Chemicals, Plastic Resins, and Rubber	20	1.41	15	12
Mixer and/or Blender, Chemicals and Chemical Products	30	2.11	7	44
All Other Skilled Craft and Kindred Workers	20	1.41	na	na
All Other Operatives and Semiskilled Workers	200	14.08	na	na

SIC 28 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
All Other Laborers and Unskilled Workers...	290	20.42	na	na
Clerical Occupations.....	120	8.45	na	na
Accounting Clerk.....	20	1.41	9	24
Bookkeeper, Hand.....	10	0.70	21	16
General Clerk, Office.....	10	0.70	7	36
Secretary.....	30	2.11	5	52
All Other Office Clerical Workers.....	20	1.41	na	na
Shipping and/or Receiving Clerk.....	10	0.70	14	24
Stock Clerk, Stockroom, Warehouse, or Storage Yard.....	10	0.70	5	12
All Other Plant Clerical Workers.....	10	0.70	na	na
Sales Occupations.....	30	2.11	na	na
Sales Representative, Sales Agent, and/or Sales Associate.....	30	2.11	16	36

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
SIC 30
June 1980

This major group includes establishments manufacturing rubber products such as tires, rubber footwear, mechanical rubber goods, heels and soles, flooring, and rubber sundries from natural, synthetic, or reclaimed rubber, gutta, percha, balata, or gutta siak.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	4,130	100.00	na	na
Managers and Officers	190	4.60	10	100
Professional Occupations	90	2.18	na	na
Chemical Engineer	10	0.24	17	14
Industrial Engineer	10	0.24	33	23
Mechanical Engineer	10	0.24	10	14
All Other Engineers	10	0.24	na	na
Purchasing Agent and/or Buyer	10	0.24	10	27
Accountant and/or Auditor	20	0.48	14	36
Personnel and/or Labor Relations Specialist	10	0.24	2	32
Designer	10	0.24	12	23
Technical Occupations	30	0.73	na	na
Drafter	10	0.24	15	14
All Other Engineering Technicians	10	0.24	na	na
All Other Technical Workers	10	0.24	na	na
Service Occupations	30	0.73	na	na
Janitor, Porter, or Cleaner	30	0.73	3	36
Maintenance and Production Occupations	3,390	82.08	na	na
Supervisor, Nonworking	110	2.66	8	91
Mechanic, Maintenance	120	2.91	17	32
Truck Driver	50	1.21	36	41
Electrician	10	0.24	16	23
Industrial Truck Operator	40	0.97	38	18
Inspector	110	2.66	11	45
Machinist	50	1.21	16	27
Maintenance Repairer, General Utility	20	0.48	18	27
Order Filler	10	0.24	33	14
Production Packager, Hand or Machine	180	4.36	9	27
Welder and/or Flamecutter	20	0.48	4	14
Die Cutter	40	0.97	32	18
Finisher, Hand	20	0.48	29	14
Finisher, Machine	20	0.48	0	14
Patternmaker, Plastics	10	0.24	19	14
Rubber Goods Cutter Finisher	40	0.97	25	18
Trimmer, Plastics	50	1.21	26	18
Painter, Production	20	0.48	0	14

SIC 30 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Compression and/or Injection Molding Machine Operator, Plastics	260	6.30	25	41
Grinder Operator, Chemicals, Plastics, Rubber, and Related Materials	40	0.97	5	27
Assembler	780	18.89	21	55
Mixer and/or Blender, Chemicals and Chemical Products	20	0.48	48	14
All Other Skilled Craft and Kindred Workers	40	0.97	na	na
All Other Operatives and Semiskilled Workers	920	22.28	na	na
All Other Laborers and Unskilled Workers	410	9.93	na	na
Clerical Occupations	370	8.96	na	na
Clerical Supervisor, Office or Plant	10	0.24	24	14
Computer Operator	10	0.24	14	18
Accounting Clerk	20	0.48	17	23
Bookkeeper, Hand	10	0.24	23	14
General Clerk, Office	40	0.97	11	68
Payroll and/or Timekeeping Clerk	10	0.24	10	23
Personnel Clerk	10	0.24	13	18
Procurement Clerk	10	0.24	6	23
Secretary	20	0.48	8	55
Switchboard Operator/Receptionist	10	0.24	8	27
Typist	10	0.24	13	14
All Other Office Clerical Workers	20	0.48	na	na
Production Clerk and/or Coordinator	30	0.73	21	36
Shipping Packer	100	2.42	35	45
Shipping and/or Receiving Clerk	40	0.97	6	68
Stock Clerk, Stockroom, Warehouse, or Storage Yard	20	0.48	15	32
Sales Occupations	30	0.73	na	na
Sales Representative, Sales Agent, and/or Sales Associate	30	0.73	25	27

LEATHER AND LEATHER PRODUCTS
SIC 31
April 1980

This major group includes establishments engaged in tanning, currying, and finishing hides and skins, and establishments manufacturing finished leather and artificial leather products, and some similar products made of other materials.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	20,390	100.00	na	na
Managers and Officers	460	2.26	3	85
Professional Occupations	190	0.93	na	na
Industrial Engineer	30	0.15	12	21
Mechanical Engineer	10	0.05	15	5
Systems Analyst, Electronic Data Processing	10	0.05	9	5
Purchasing Agent and/or Buyer	40	0.20	4	33
Accountant and/or Auditor	30	0.15	8	16
Nurse, Professional	10	0.05	4	7
Personnel and/or Labor Relations Specialist	20	0.10	6	16
Designer	30	0.15	5	14
All Other Professional Workers	10	0.05	na	na
Technical Occupations	150	0.74	na	na
Computer Programmer	10	0.05	6	9
Engineering Technician	130	0.64	30	7
All Other Technical Workers	10	0.05	na	na
Service Occupations	240	1.18	na	na
Janitor, Porter, or Cleaner	150	0.74	3	53
Guard or Doorkeeper	70	0.34	7	16
All Other Service Workers	20	0.10	na	na
Maintenance and Production Occupations	17,950	88.03	na	na
Supervisor, Nonworking	510	2.50	2	69
Mechanic, Maintenance	120	0.59	4	33
All Other Mechanics and Repairers	10	0.05	na	na
Presser, Hand	10	0.05	23	4
Truck Driver	70	0.34	3	31
Carpenter	20	0.10	5	13
Delivery or Route Worker	20	0.10	6	9
Electrician	20	0.10	3	13
Industrial Truck Operator	50	0.25	6	15
Inspector	460	2.26	3	56
Machinist	70	0.34	5	39
Maintenance Repairer, General Utility	180	0.88	5	38
Helper, Trades	30	0.15	9	7
Millwright	10	0.05	15	8
Order Filler	50	0.25	12	12
Painter, Maintenance	10	0.05	7	4

SIC 31 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Plumber and/or Pipefitter	10	0.05	11	5
Production Packager, Hand or Machine	340	1.67	4	47
Sewing Machine Operator, Regular Equipment--Nongarment	580	2.84	10	22
Sewing Machine Operator, Special and/or Automatic Equipment--Nongarment	240	1.18	5	26
Stationary Boiler Firer	20	0.10	0	6
Skiver	280	1.37	3	68
Trimmer, Machine	170	0.83	5	42
Assembler for Puller Over, Hand or Machine	90	0.44	6	26
Bed Laster	70	0.34	11	13
Bottom Filler	40	0.20	4	24
Buffer, Hides or Skins	60	0.29	5	11
Buffer, Shoe Parts	120	0.59	6	40
Burnisher	60	0.29	5	26
Cementer, Machine Joiner	320	1.57	8	40
Perforator Operator	110	0.54	4	36
Cobbler	100	0.49	7	27
Die Cutter and/or Clicking Machine Operator	820	4.02	3	72
Flamer	60	0.29	4	39
Floor Worker, Footwear	690	3.38	6	69
Folder, Machine	70	0.34	9	24
Glue Spreading Machine Operator, Luggage	10	0.05	23	4
Heel Attacher	70	0.34	6	28
Heel Seat Laster, Machine	70	0.34	4	36
Heel Seat Fitter, Machine	20	0.10	10	12
Inker, Hand or Machine	70	0.34	5	31
Laster, Hand	90	0.44	16	14
Lasting Machine Operator, Hand Method	40	0.20	14	6
Leather Stamper, Hand	10	0.05	10	5
Limer	30	0.15	2	6
Tanning Liquor Maker	10	0.05	2	5
Measuring Machine Operator, Leather	20	0.10	3	6
Patternmaker	40	0.20	7	18
Puller Over	30	0.15	13	12
Repairer, Finish	330	1.62	5	41
Rough Rounder, Machine	60	0.29	6	27
Seam Rubbing Machine Operator	90	0.44	6	36
Seasoner, Machine	40	0.20	3	5
Seasoning Mixer	30	0.15	7	6
Shoe Parts Sewer, Hand	900	4.41	6	24
Shank Piece Tacker	60	0.29	6	31
Side Laster	70	0.34	5	25
Sole Leveler, Machine	40	0.20	11	11
Sorter, Leather	160	0.78	3	41
Splitting Machine Feeder	30	0.15	1	6
Sprayer, Hand and/or Machine	150	0.74	3	41
Stainer	40	0.20	9	19

SIC 31 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Staker, Machine	60	0.29	0	8
Stitcher, Special Machine	190	0.93	10	26
Stitcher, Standard Machine	3,480	17.07	3	68
Stitcher, Utility	270	1.32	4	53
Tacker, Toggler, and Paster	160	0.78	0	8
Tanning Drum Operator and/or Cooler, Hides or Skins	90	0.44	5	8
Tester	50	0.25	15	7
Thermalasting Machine Operator	20	0.10	14	7
Toe Laster	60	0.29	6	22
Treer	110	0.54	4	28
Vulcanizer, Footwear	50	0.25	7	8
Wringer Machine Operator	60	0.29	4	8
Riveter, Light	50	0.25	10	11
Compression and/or Injection Molding Machine Operator, Plastics	130	0.64	14	14
Conveyor Operator or Tender	80	0.39	5	24
Vamp Creaser	10	0.05	10	8
Splitter, Machine	100	0.49	4	35
Fastener, Machine	170	0.83	6	39
Cementer, Paster, Backer, or Fitter, Hand	500	2.45	4	60
Eyelet Machine Operator	110	0.54	5	47
Molder, Shoe Parts	90	0.44	11	14
Pulling and Lasting Machine Operator	90	0.44	7	22
Cutter, Hand	160	0.78	11	26
Gluer and/or Cementer, Hand	110	0.54	12	18
Instructor, Leather or Footwear Machinery	40	0.20	11	18
Embossing, Stamping, and/or Marking Machine Operator	240	1.18	4	61
Assembler	310	1.52	8	32
Beamer, Hand or Machine	20	0.10	4	6
All Other Skilled Craft and Kindred Workers	80	0.39	na	na
All Other Operatives and Semiskilled Workers	870	4.27	na	na
All Other Laborers and Unskilled Workers	1,790	8.78	na	na
Clerical Occupations	1,260	6.18	na	na
Clerical Supervisor, Office or Plant	90	0.44	11	25
Bookkeeping and/or Billing Machine Operator	10	0.05	13	6
Computer Operator	20	0.10	4	13
Keypunch Operator	20	0.10	6	12
All Other Office Machine Operators	10	0.05	na	na
Stenographer	10	0.05	9	7
Accounting Clerk	80	0.39	5	29
Bookkeeper, Hand	30	0.15	5	24
File Clerk	10	0.05	12	6
General Clerk, Office	160	0.78	2	38
Order Clerk	40	0.20	9	20

SIC 31 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (cont.)				
Payroll and/or Timekeeping Clerk	120	0.59	3	52
Personnel Clerk	20	0.10	6	21
Procurement Clerk	20	0.10	9	13
Receptionist	10	0.05	11	7
Secretary	40	0.20	6	27
Switchboard Operator	10	0.05	8	8
Switchboard Operator/Receptionist	40	0.20	3	38
Typist	30	0.15	8	6
All Other Office Clerical Workers	20	0.10	na	na
Production Clerk and/or Coordinator	70	0.34	6	31
Shipping Packer	150	0.74	8	36
Shipping and/or Receiving Clerk	120	0.59	5	58
Stock Clerk, Stockroom, Warehouse, or Storage Yard	120	0.59	3	34
All Other Plant Clerical Workers	10	0.05	na	na
Sales Occupations	140	0.69	na	na
Sales Representative, Sales Agent, and/or Sales Associate	60	0.29	8	21
Sales Clerk	80	0.39	2	8

FOOTWEAR, EXCEPT RUBBER
SIC 314
April 1980

This industry category includes establishments primarily engaged in manufacturing footwear such as boots, shoes, and slippers except those made of rubber or plastic.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	17,130	100.00	na	na
Managers and Officers	360	2.10	4	85
Professional Occupations	170	0.99	na	na
Industrial Engineer	40	0.23	12	28
Systems Analyst, Electronic Data Processing	10	0.06	9	7
Purchasing Agent and/or Buyer	40	0.23	4	43
Accountant and/or Auditor	20	0.12	11	18
Nurse, Professional	10	0.06	4	7
Personnel and/or Labor Relations Specialist	10	0.06	9	15
Designer	30	0.18	5	18
All Other Professional Workers	10	0.06	na	na
Technical Occupations	140	0.82	na	na
Computer Programmer	10	0.06	7	10
Engineering Technician	120	0.70	31	7
All Other Technical Workers	10	0.06	na	na
Service Occupations	190	1.11	na	na
Janitor, Porter, or Cleaner	130	0.76	3	58
Guard or Doorkeeper	40	0.23	7	17
All Other Service Workers	20	0.12	na	na
Maintenance and Production Occupations	15,130	88.32	na	na
Supervisor, Nonworking	350	2.04	3	70
Mechanic, Maintenance	80	0.47	6	38
Laundry Workers	10	0.06	na	na
Truck Driver	40	0.23	5	30
Carpenter	10	0.06	6	13
Delivery or Route Worker	20	0.12	9	10
Electrician	10	0.06	8	8
Industrial Truck Operator	20	0.12	14	7
Inspector	420	2.45	3	63
Machinist	60	0.35	6	42
Maintenance Repairer, General Utility	120	0.70	8	43
Helper, Trades	30	0.18	11	8
Millwright	10	0.06	20	8
Order Filler	50	0.29	12	17
Production Packager, Hand or Machine	280	1.63	5	50
Sewing Machine Operator, Regular Equipment--Nongarment	560	3.27	10	28

SIC 314 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Sewing Machine Operator, Special and/or Automatic Equipment--Nongarment	230	1.34	5	35
Skiver	250	1.46	3	80
Trimmer, Machine	140	0.82	6	45
Assembler for Puller Over, Hand or Machine	90	0.53	6	37
Bed Laster	70	0.41	11	18
Bottom Filler	40	0.23	5	32
Buffer, Hides or Skins	10	0.06	22	5
Buffer, Shoe Parts	120	0.70	6	50
Burnisher	60	0.35	5	33
Cementer, Machine Joiner	300	1.75	8	50
Perforator Operator	100	0.58	4	47
Cobbler	90	0.53	8	35
Die Cutter and/or Clicking Machine Operator	760	4.44	3	83
Flamer	50	0.29	4	52
Floor Worker, Footwear	630	3.68	6	83
Folder, Machine	60	0.35	10	30
Heel Attacher	70	0.41	6	40
Heel Seat Laster, Machine	70	0.41	4	52
Heel Seat Fitter, Machine	20	0.12	10	17
Inker, Hand or Machine	60	0.35	6	38
Laster, Hand	80	0.47	16	18
Lasting Machine Operator, Hand Method	40	0.23	14	8
Leather Stamper, Hand	10	0.06	10	7
Patternmaker	30	0.18	9	20
Puller Over	30	0.18	13	17
Repairer, Finish	330	1.93	5	55
Rough Rounder, Machine	60	0.35	6	35
Seam Rubbing Machine Operator	80	0.47	7	45
Shoe Parts Sewer, Hand	850	4.96	7	32
Shank Piece Tacker	50	0.29	7	40
Side Laster	70	0.41	5	35
Sole Leveler, Machine	40	0.23	11	15
Sorter, Leather	90	0.53	5	43
Sprayer, Hand and/or Machine	80	0.47	6	43
Stainer	30	0.18	10	25
Stitcher, Special Machine	200	1.17	10	37
Stitcher, Standard Machine	3,350	19.56	3	88
Stitcher, Utility	270	1.58	4	68
Tester	30	0.18	28	7
Thermalasting Machine Operator	20	0.12	14	10
Toe Laster	60	0.35	6	32
Treer	110	0.64	4	40
Vulcanizer, Footwear	50	0.29	7	12
Riveter, Light	40	0.23	12	13
Compression and/or Injection Molding Machine Operator, Plastics	90	0.53	20	13

SIC 314 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Conveyor Operator or Tender	70	0.41	6	30
Vamp Creaser	10	0.06	11	17
Splitter, Machine	80	0.47	5	42
Fastener, Machine	160	0.93	6	50
Cementer, Paster, Backer, or Fitter, Hand	470	2.74	4	75
Eyelet Machine Operator	110	0.64	5	62
Molder, Shoe Parts	50	0.29	18	15
Pulling and Lasting Machine Operator	90	0.53	7	30
Cutter, Hand	130	0.76	11	28
Gluer and/or Cementer, Hand	100	0.58	14	20
Instructor, Leather or Footwear Machinery	40	0.23	11	23
Embossing, Stamping, and/or Marking Machine Operator	190	1.11	4	70
Assembler	240	1.40	10	33
All Other Skilled Craft and Kindred Workers	70	0.41	na	na
All Other Operatives and Semiskilled Workers	560	3.27	na	na
All Other Laborers and Unskilled Workers	1,380	8.06	na	na
Clerical Occupations	1,030	6.01	na	na
Clerical Supervisor, Office or Plant	60	0.35	12	30
Bookkeeping and/or Billing Machine Operator	10	0.06	16	7
Computer Operator	20	0.12	5	13
Keypunch Operator	10	0.06	10	10
All Other Office Machine Operators	10	0.06	na	na
Stenographer	10	0.06	12	7
Accounting Clerk	60	0.35	6	30
Bookkeeper, Hand	20	0.12	9	18
File Clerk	10	0.06	15	5
General Clerk, Office	140	0.82	3	33
Order Clerk	40	0.23	10	22
Payroll and/or Timekeeping Clerk	100	0.58	4	57
Personnel Clerk	20	0.12	8	22
Procurement Clerk	20	0.12	13	13
Receptionist	10	0.06	11	10
Secretary	30	0.18	7	25
Switchboard Operator/Receptionist	30	0.18	3	43
Typist	30	0.18	8	8
All Other Office Clerical Workers	20	0.12	na	na
Production Clerk and/or Coordinator	60	0.35	7	35
Shipping Packer	120	0.70	10	37
Shipping and/or Receiving Clerk	90	0.53	6	60
Stock Clerk, Stockroom, Warehouse, or Storage Yard	110	0.64	4	38
Sales Occupations	110	0.64	na	na
Sales Representative, Sales Agent, and/or Sales Associate	40	0.23	13	17
Sales Clerk	70	0.41	2	8

STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC 32
May 1980

This major group includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete and gypsum products, cut stone, abrasive and asbestos products, etc., from materials taken principally from the earth in the form of stone, clay, and sand.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	1,230	100.00	na	na
Managers and Officers	110	8.94	4	84
Professional Occupations	10	0.81	na	na
Service Occupations	10	0.81	na	na
Janitor, Porter, or Cleaner	10	0.81	12	14
Maintenance and Production Occupations	990	80.49	na	na
Supervisor, Nonworking	60	4.88	6	43
Mechanic, Automotive	50	4.07	7	39
Mechanic, Maintenance	10	0.81	17	16
Truck Driver	240	19.51	5	70
Concrete Rubber	10	0.81	23	9
Crane, Derrick, and/or Hoist Operator	10	0.81	15	16
Delivery or Route Worker	80	6.50	7	25
Heavy Equipment Operator	60	4.88	10	34
Industrial Truck Operator	50	4.07	6	45
Maintenance Repairer, General Utility	40	3.25	5	27
Order Filler	10	0.81	25	9
Welder and/or Flamecutter	10	0.81	12	18
Blockmaking Machine Operator	20	1.63	23	18
Brick and Tile Making Machine Operator	10	0.81	0	7
Cage Maker, Hand or Machine	10	0.81	34	7
Concrete Stone Fabricator	60	4.88	18	14
Setter and/or Drawer	20	1.63	0	7
Conveyor Operator or Tender	10	0.81	19	14
Mill and/or Grinder Operator, Minerals	20	1.63	7	9
Model and/or Mold Maker	10	0.81	21	9
Furnace, Kiln, Drier, or Oven Operator/ Tender	10	0.81	6	11
Batch Plant Operator	40	3.25	7	45
All Other Operatives and Semiskilled Workers	80	6.50	na	na
All Other Laborers and Unskilled Workers	70	5.69	na	na
Clerical Occupations	90	7.32	na	na
Accounting Clerk	10	0.81	21	11
Bookkeeper, Hand	20	1.63	12	27
General Clerk, Office	30	2.44	9	45
Secretary	10	0.81	9	11

SIC 32 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (cont.)				
Dispatcher, Vehicle, Service or Work.....	10	0.81	9	25
All Other Plant Clerical Workers.....	10	0.81	na	na
Sales Occupations.....	20	1.63	na	na
Sales Representative, Sales Agent, and/or Sales Associate.....	20	1.63	12	27

PRIMARY METAL INDUSTRIES
SIC 33
April 1980

This major group includes establishments engaged in the smelting and refining of ferrous and nonferrous metals from ore, pig, or scrap; in the rolling, drawing, and alloying of metals; in the manufacture of castings and other basic products of metals; and in the manufacture of nails, spikes, and insulated wire and cable.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	410	100.00	na	na
Managers and Officers	20	4.88	0	100
Professional Occupations	10	2.44	na	na
Technical Occupations	10	2.44	na	na
Maintenance and Production Occupations	320	78.05	na	na
Mechanics and Repairers	10	2.44	na	na
Filer, Grinder, Buffer, Chipper, Cleaner, and/or Polisher	10	2.44	14	44
Machinist	20	4.88	0	33
Coremaker, Hand, Bench, and/or Floor	10	2.44	9	33
Grinding and/or Abrading Machine Operator, Metal	30	7.32	6	56
Molder, Bench and/or Floor	30	7.32	11	56
Furnace Operator and/or Cupola Tender	20	4.88	3	44
All Other Skilled Craft and Kindred Workers	70	17.07	na	na
All Other Operatives and Semiskilled Workers	100	24.39	na	na
All Other Laborers and Unskilled Workers	20	4.88	na	na
Clerical Occupations	40	9.76	na	na
Office Clerical Workers	20	4.88	na	na
Shipping Packer	10	2.44	11	44
All Other Plant Clerical Workers	10	2.44	na	na
Sales Occupations	10	2.44	na	na

FABRICATED METAL PRODUCTS,
EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT
SIC 34 1/
June 1980

This major group includes establishments engaged in fabricating ferrous and nonferrous metal products such as metal cans, tinware, hand tools, cutlery, general hardware, non-electric heating apparatus, fabricated structural metal products, metal forgings, metal stampings, and a variety of metal and wire products not elsewhere classified.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	3,690	100.00	na	na
Managers and Officers	280	7.59	3	95
Professional Occupations	200	5.42	na	na
Civil Engineer	20	0.54	2	7
Industrial Engineer	20	0.54	1	9
Mechanical Engineer	40	1.08	10	28
All Other Engineers	20	0.54	na	na
Systems Analyst, Electronic Data Processing	10	0.27	15	7
Purchasing Agent and/or Buyer	30	0.81	5	23
Accountant and/or Auditor	30	0.81	8	32
Cost Estimator	20	0.54	6	18
Personnel and/or Labor Relations Specialist	10	0.27	7	11
Technical Occupations	130	3.52	na	na
Computer Programmer	10	0.27	4	5
Drafter	80	2.17	5	28
Tool Programmer, Numerical Control	10	0.27	8	5
All Other Engineering Technicians	20	0.54	na	na
All Other Technical Workers	10	0.27	na	na
Service Occupations	40	1.08	na	na
Janitor, Porter, or Cleaner	40	1.08	7	37
Maintenance and Production Occupations	2,690	72.90	na	na
Supervisor, Nonworking	110	2.98	4	37
Mechanic, Maintenance	30	0.81	8	19
All Other Mechanics and Repairers	10	0.27	na	na
Truck Driver	30	0.81	12	23
Blacksmith	20	0.54	37	5
Carpenter	10	0.27	6	7
Crane, Derrick, and/or Hoist Operator	30	0.81	9	11
Electrician	10	0.27	4	12
Filer, Grinder, Buffer, Cleaner, and/or Polisher	60	1.63	10	19
Industrial Truck Operator	40	1.08	7	19
Inspector	70	1.90	4	21
Machinist	90	2.44	26	21

SIC 34 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Maintenance Repairer, General Utility	30	0.81	4	11
Helper, Trades	80	2.17	9	26
Metal Fabricator	60	1.63	19	5
Millwright	10	0.27	11	5
Order Filler	30	0.81	11	12
Electroplater	50	1.36	11	5
Production Packager, Hand or Machine	60	1.63	7	26
Sandblaster and/or Shotblaster	10	0.27	6	7
Sheet Metal Worker	110	2.98	17	21
Tool and Die Maker	190	5.15	10	25
Welder and/or Flamecutter	290	7.86	5	40
Drill Press and/or Boring Machine Operator	40	1.08	8	23
Grinding and/or Abrading Machine Operator, Metal	40	1.08	15	18
Heat Treater, Annealer, and/or Temperer	10	0.27	9	7
Lathe and/or Turning Machine Operator, Metal	40	1.08	4	11
Lay Out Marker, Metal	40	1.08	15	9
Machine Tool Operator, Combination	130	3.52	7	23
Machine Tool Setter, Metalworking	20	0.54	7	7
Molder, Bench and/or Floor	20	0.54	24	5
Sawyer, Metal	10	0.27	11	7
Tester	20	0.54	6	7
Painter, Production	30	0.81	8	21
Punch Press Operator, Metal	50	1.36	10	21
Shear and/or Slitter Operator, Metal	30	0.81	12	25
Dip Plater, Nonelectrolytic	20	0.54	7	5
Fitter, Structural Metal	110	2.98	10	14
Power Brake and/or Bending Machine Operator, Metal	50	1.36	12	23
Assembler	250	6.78	8	32
All Other Skilled Craft and Kindred Workers	130	3.52	na	na
All other Operatives and Semiskilled Workers	70	1.90	na	na
All Other Laborers and Unskilled Workers	150	4.07	na	na
Clerical Occupations	310	8.40	na	na
Clerical Supervisor, Office or Plant	10	0.27	19	5
Computer Operator	10	0.27	14	7
Accounting Clerk	20	0.54	5	16
Bookkeeper, Hand	40	1.08	9	47
General Clerk, Office	50	1.36	7	51
Payroll and/or Timekeeping Clerk	10	0.27	5	9
Personnel Clerk	10	0.27	6	9
Secretary	50	1.36	6	39
Switchboard Operator/Receptionist	10	0.27	8	14
Typist	10	0.27	11	9
All Other Office Clerical Workers	10	0.27	na	na

SIC 34 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (cont.)				
Production Clerk and/or Coordinator.....	20	0.54	6	12
Shipping Packer.....	20	0.54	14	12
Shipping and/or Receiving Clerk.....	10	0.27	7	16
Stock Clerk, Stockroom, Warehouse, or Storage Yard.....	20	0.54	4	11
All Other Plant Clerical Workers.....	10	0.27	na	na
Sales Occupations.....	40	1.08	na	na
Sales Representative, Sales Agent, and/or Sales Associate.....	40	1.08	7	32

1/ Excludes SIC 348 - Ordnance and Accessories, Except Vehicles and Guided Missiles.

FABRICATED STRUCTURAL METAL PRODUCTS
SIC 344
June 1980

This industry category includes establishments manufacturing fabricated structural metal products such as fabricated structural metal; metal doors, sash frames, molding, and trim; fabricated plate work (boiler shops); sheet metal work; architectural and ornamental metal work; and prefabricated metal buildings.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	1,790	100.00	na	na
Managers and Officers	170	9.50	4	92
Professional Occupations	140	7.82	na	na
Civil Engineer	20	1.12	2	12
Industrial Engineer	20	1.12	2	12
Mechanical Engineer	20	1.12	13	31
All Other Engineers	20	1.12	na	na
Purchasing Agent and/or Buyer	20	1.12	5	35
Accountant and/or Auditor	20	1.12	7	35
Cost Estimator	10	0.56	6	23
Personnel and/or Labor Relations Specialist	10	0.56	5	12
Technical Occupations	100	5.59	na	na
Drafter	60	3.35	6	35
All Other Engineering Technicians	30	1.68	na	na
All Other Technical Workers	10	0.56	na	na
Service Occupations	10	0.56	na	na
Janitor, Porter, or Cleaner	10	0.56	12	35
Maintenance and Production Occupations	1,220	68.16	na	na
Supervisor, Nonworking	50	2.79	8	35
Mechanic, Maintenance	10	0.56	19	15
Truck Driver	20	1.12	13	35
Crane, Derrick, and/or Hoist Operator	20	1.12	10	12
Electrician	10	0.56	9	15
Industrial Truck Operator	10	0.56	19	19
Inspector	30	1.68	3	15
Machinist	10	0.56	26	15
Maintenance Repairer, General Utility	20	1.12	4	12
Helper, Trades	60	3.35	11	35
Metal Fabricator	60	3.35	19	12
Order Filler	20	1.12	2	12
Sandblaster and/or Shotblaster	10	0.56	9	12
Sheet Metal Worker	100	5.59	19	42
Welder and/or Flamecutter	260	14.53	5	54
Drill Press and/or Boring Machine Operator	10	0.56	18	27
Lay Out Marker, Metal	30	1.68	23	15
Machine Tool Operator, Combination	60	3.35	13	23
Sawyer, Metal	10	0.56	13	12
Painter, Production	20	1.12	10	31

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Punch Press Operator, Metal	10	0.56	17	12
Shear and/or Slitter Operator, Metal	20	1.12	18	23
Fitter, Structural Metal	110	6.15	10	27
Power Brake and/or Bending Machine Operator, Metal	20	1.12	17	23
Assembler	130	7.26	13	15
All Other Skilled Craft and Kindred Workers	30	1.68	na	na
All Other Operatives and Semiskilled Workers	60	3.35	na	na
All Other Laborers and Unskilled Workers	20	1.12	na	na
Clerical Occupations	130	7.26	na	na
Accounting Clerk	10	0.56	8	19
Bookkeeper, Hand	20	1.12	15	42
General Clerk, Office	30	1.68	11	54
Secretary	30	1.68	6	42
Switchboard Operator/Receptionist	10	0.56	7	19
All Other Office Clerical Workers	10	0.56	na	na
Shipping and/or Receiving Clerk	10	0.56	8	19
All Other Plant Clerical Workers	10	0.56	na	na
Sales Occupations	20	1.12	na	na
Sales Representative, Sales Agent, and/or Sales Associate	20	1.12	12	31

MACHINERY, EXCEPT ELECTRICAL
SIC 35
June 1980

This major group includes establishments engaged in manufacturing machinery and equipment, other than electrical equipment and transportation equipment.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	4,500	100.00	na	na
Managers and Officers	250	5.56	3	90
Professional Occupations	330	7.33	na	na
Electrical and/or Electronic Engineer	40	0.89	2	13
Industrial Engineer	100	2.22	3	22
Mechanical Engineer	70	1.56	2	19
All Other Engineers	10	0.22	na	na
Purchasing Agent and/or Buyer	30	0.67	4	22
Accountant and/or Auditor	40	0.89	7	26
Cost Estimator, Engineering	10	0.22	3	9
Personnel and/or Labor Relations Specialist	20	0.44	2	10
All Other Professional Workers	10	0.22	na	na
Technical Occupations	240	5.33	na	na
Computer Programmer, Business	10	0.22	2	6
Drafter	50	1.11	16	25
Electrical and/or Electronic Technician	120	2.67	1	10
Mechanical Engineering Technician	20	0.44	0	4
Tool Programmer, Numerical Control	10	0.22	2	9
All Other Engineering Technicians	20	0.44	na	na
All Other Technical Workers	10	0.22	na	na
Service Occupations	100	2.22	na	na
Janitor, Porter, or Cleaner	60	1.33	6	43
Guard or Doorkeeper	10	0.22	0	4
All Other Service Workers	30	0.67	na	na
Maintenance and Production Occupations	3,040	67.56	na	na
Supervisor, Nonworking	150	3.33	5	47
Mechanic, Maintenance	10	0.22	3	4
Truck Driver	10	0.22	1	13
Carpenter	10	0.22	13	6
Electrician	30	0.67	12	12
Filer, Grinder, Buffer, Chipper, Cleaner, and/or Polisher	40	0.89	10	18
Gear Cutting, Gear Grinding and/or Gear Shaping Machine Operator	70	1.56	0	4
Industrial Truck Operator	20	0.44	17	16
Inspector	140	3.11	2	24
Machinist	230	5.11	18	44
Maintenance Repairer, General Utility	40	0.89	10	16

SIC 35 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Helper, Trades	70	1.56	8	12
Millwright	10	0.22	12	9
Order Filler	10	0.22	3	4
Production Packager, Hand or Machine	10	0.22	6	4
Sandblaster and/or Shotblaster	10	0.22	9	7
Sheet Metal Worker	20	0.44	8	10
Tool and Die Maker	140	3.11	24	26
Welder and/or Flamecutter	210	4.67	3	51
Drill Press and/or Boring Machine Operator.	70	1.56	22	22
Grinding and/or Abrading Machine Operator, Metal	110	2.44	15	24
Heat Treater, Annealer, and/or Temperer	30	0.67	5	7
Lathe and/or Turning Machine Operator, Metal	140	3.11	6	31
Lay-Out Marker, Metal	10	0.22	3	4
Machine Tool Operator, Combination	170	3.78	10	43
Machine Tool Operator, Numerical Control	90	2.00	10	21
Machine Tool Operator, Toolroom	20	0.44	8	6
Machine Tool Setter, Metalworking	30	0.67	14	10
Milling and/or Planing Machine Operator	190	4.22	10	25
Sawyer, Metal	10	0.22	11	6
Tester	50	1.11	0	4
Painter, Production	60	1.33	3	22
Punch Press Operator, Metal	30	0.67	17	13
Shear and/or Slitter Operator, Metal	10	0.22	20	4
Power Brake and/or Bending Machine Operator, Metal	70	1.56	1	4
Machine Assembler	160	3.56	26	28
Electrical and Electronic Assembler	290	6.44	0	4
All Other Assemblers	20	0.44	na	na
All Other Skilled Craft and Kindred Workers	60	1.33	na	na
All Other Operatives and Semiskilled Workers	130	2.89	na	na
All Other Laborers and Unskilled Workers	60	1.33	na	na
Clerical Occupations	500	11.11	na	na
Clerical Supervisor, Office or Plant	10	0.22	12	7
Bookkeeping and/or Billing Machine Operator	10	0.22	33	4
Computer Operator	10	0.22	9	6
Keypunch Operator	10	0.22	12	4
Accounting Clerk	20	0.44	1	10
General Clerk, Office	100	2.22	8	54
Order Clerk	10	0.22	0	6
Payroll and/or Timekeeping Clerk	10	0.22	4	9
Personnel Clerk	10	0.22	11	6
Procurement Clerk	10	0.22	2	9
Secretary	50	1.11	3	31

SIC 35 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (cont.)				
Switchboard Operator/Receptionist	10	0.22	2	15
Typist	10	0.22	3	6
All Other Office Clerical Workers	10	0.22	na	na
Production Clerk and/or Coordinator	60	1.33	5	21
Shipping Packer	30	0.67	6	13
Shipping and/or Receiving Clerk	30	0.67	9	19
Stock Clerk, Stockroom, Warehouse, or Storage Yard	100	2.22	3	31
Sales Occupations	40	0.89	na	na
Sales Representative, Sales Agent, and/or Sales Associate	40	0.89	6	22

ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT, AND SUPPLIES
SIC 36
June 1980

This major group includes establishments engaged in manufacturing machinery, apparatus, and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	7,560	100.00	na	na
Managers and Officers	340	4.50	11	91
Professional Occupations	450	5.95	na	na
Electrical and/or Electronic Engineer	120	1.59	10	50
Industrial Engineer	130	1.72	3	50
Mechanical Engineer	30	0.40	4	41
All Other Engineers	10	0.13	na	na
Systems Analyst, Business	20	0.26	3	15
Systems Analyst, Scientific and Technical	10	0.13	5	12
Purchasing Agent and/or Buyer	30	0.40	4	47
Accountant and/or Auditor	40	0.53	4	53
Cost Estimator	10	0.13	21	12
Nurse, Professional	10	0.13	3	18
Personnel and/or Labor Relations Specialist	30	0.40	1	41
Designer	10	0.13	8	12
Technical Occupations	300	3.97	na	na
Computer Programmer, Business	10	0.13	5	15
Computer Programmer, Scientific and Technical	10	0.13	7	9
Drafter	30	0.40	19	35
Electrical and/or Electronic Technician	170	2.25	4	56
Mechanical Engineering Technician	10	0.13	37	9
Tool Programmer, Numerical Control	10	0.13	14	12
Industrial Engineering Technician	20	0.26	8	21
All Other Engineering Technicians	30	0.40	17	12
All Other Technical Workers	10	0.13	na	na
Service Occupations	70	0.93	na	na
Janitor, Porter, or Cleaner	50	0.66	4	47
All Other Service Workers	20	0.26	na	na
Maintenance and Production Occupations	5,810	76.85	na	na
Supervisor, Nonworking	310	4.10	3	68
Electrical Instrument Repairer	10	0.13	15	9
Mechanic, Maintenance	200	2.65	6	44
All Other Mechanics and Repairers	50	0.66	na	na
Truck Driver	10	0.13	16	18
Carpenter	10	0.13	6	12
Electrician	20	0.26	10	29

SIC 36 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Filer, Grinder, Buffer, Chipper, Cleaner, and/or Polisher	50	0.66	21	21
Industrial Truck Operator	10	0.13	10	15
Inspector	350	4.63	4	59
Instrument Repairer	10	0.13	13	12
Machinist	100	1.32	7	44
Maintenance Repairer, General Utility	20	0.26	14	8
Order Filler	20	0.26	11	9
Electroplater	50	0.66	11	12
Production Packager, Hand or Machine	160	2.12	19	21
Tool and Die Maker	60	0.79	5	26
Welder and/or Flamecutter	150	1.98	14	24
Drill Press Operator	40	0.53	11	9
Etcher and/or Engraver	20	0.26	6	12
Grinding and/or Abrading Machine Operator, Metal	30	0.40	27	9
Heat Treater, Annealer, and/or Temperer	20	0.26	12	9
Lathe and/or Turning Machine Operator, Metal	60	0.79	28	21
Machine Tool Operator, Combination	30	0.40	9	15
Machine Tool Operator, Numerical Control	50	0.66	8	18
Machine Tool Operator, Toolroom	30	0.40	12	12
Machine Tool Setter, Metal	80	1.06	11	15
Milling and/or Planing Machine Operator	40	0.53	24	12
Sawyer, Metal	10	0.13	17	15
Tester	220	2.91	10	35
Painter, Production	20	0.26	16	21
Wirer, Electronic	80	1.06	35	12
Punch Press Operator, Metal	70	0.93	35	18
Encapsulator	80	1.06	20	9
Machine Assembler	150	1.98	8	9
Electro-Mechanical Equipment Assembler	280	3.70	9	12
Electrical and Electronic Assembler	1,420	18.78	3	29
All Other Assemblers	660	8.73	na	na
Mixer and/or Blender, Chemicals and Chemical Products	20	0.26	6	15
All Other Skilled Craft and Kindred Workers	90	1.19	na	na
All Other Operatives and Semiskilled Workers	380	5.03	na	na
All Other Laborers and Unskilled Workers	340	4.50	na	na
Clerical Occupations	560	7.41	na	na
Computer Operator	10	0.13	22	15
Keypunch Operator	10	0.13	10	18
Peripheral Electronic Data Processing Equipment Operator	20	0.26	7	15
Accounting Clerk	50	0.66	11	41
File Clerk	10	0.13	25	12

SIC 36 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (cont.)				
General Clerk, Office	20	0.26	4	26
Order Clerk	20	0.26	23	18
Payroll and/or Timekeeping Clerk	20	0.26	4	41
Personnel Clerk	20	0.26	6	35
Procurement Clerk	10	0.13	16	15
Receptionist	10	0.13	5	15
Secretary	80	1.06	12	53
Statistical Clerk	10	0.13	18	12
Switchboard Operator/Receptionist	10	0.13	9	35
Typist	20	0.26	3	21
All Other Office Clerical Workers	10	0.13	na	na
Production Clerk and/or Coordinator	100	1.32	4	47
Shipping Packer	20	0.26	9	24
Shipping and/or Receiving Clerk	40	0.53	3	56
Stock Clerk, Stockroom, Warehouse, or Storage Yard	60	0.79	3	50
All Other Plant Clerical Workers	10	0.13	na	na
Sales Occupations	30	0.40	na	na
Sales Representative, Sales Agent, and/or Sales Associate	30	0.40	23	32

TRANSPORTATION EQUIPMENT
SIC 37 1/
June 1980

This major group includes establishments engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	7,930	100.00	na	na
Managers and Officers	190	2.40	2	80
Professional Occupations	270	3.40	na	na
Industrial Engineer	40	0.50	1	6
Mechanical Engineer	20	0.25	0	8
All Other Engineers	60	0.76	na	na
Purchasing Agent and/or Buyer	100	1.26	1	27
All Other Professional Workers	50	0.63	na	na
Technical Occupations	220	2.77	na	na
Drafter	150	1.89	1	10
All Other Engineering Technicians	60	0.76	na	na
All Other Technical Workers	10	0.13	na	na
Service Occupations	170	2.14	na	na
Janitor, Porter or Cleaner	50	0.63	2	18
Guard or Doorkeeper	90	1.13	0	8
All Other Service Workers	30	0.38	na	na
Maintenance and Production Occupations	6,470	81.59	na	na
Supervisor, Nonworking	470	5.93	0	22
Mechanic, Automotive	10	0.13	23	6
Marine Mechanic and/or Repairer	30	0.38	18	16
All Other Mechanics and Repairers	160	2.02	na	na
Truck Driver	30	0.38	4	10
Carpenter	510	6.43	2	67
Crane, Derrick, and/or Hoist Operator	40	0.50	3	20
Electrician	590	7.44	0	22
Filer, Grinder, Buffer, Chipper, Cleaner, and/or Polisher	160	2.02	0	8
Inspector	140	1.77	0	6
Machinist	10	0.13	0	8
Maintenance Repairer, General Utility	50	0.63	4	8
Helper, Trades	90	1.13	2	10
Plumber and/or Pipefitter	430	5.42	1	22
Sewing Machine Operator, Regular Equipment--Nongarment	10	0.13	19	6
Sheet Metal Worker	310	3.91	0	8
Tool and Die Maker	60	0.76	0	6
Welder and/or Flamecutter	640	8.07	1	24
Drill Press and/or Boring Machine Operator	10	0.13	0	6

SIC 37 (cont.)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occup. (cont.)				
Heat Treater, Annealer, and/or Temperer	10	0.13	0	6
Lathe and/or Turning Machine Operator, Metal	20	0.25	0	6
Machine Tool Operator, Combination	70	0.88	2	12
Shipfitter	320	4.04	2	10
Woodworking Machine Operator	10	0.13	25	10
Painter, Production	330	4.16	2	39
Assemblers	70	0.88	na	na
Laminator, Preforms	90	1.13	6	33
All Other Skilled Craft and Kindred Workers	510	6.43	na	na
All Other Operatives and Semiskilled Workers	570	7.19	na	na
All Other Laborers and Unskilled Workers	720	9.08	na	na
Clerical Occupations	590	7.44	na	na
Accounting Clerk	20	0.25	0	6
Bookkeeper, Hand	10	0.13	17	10
General Clerk, Office	70	0.88	3	39
Order Clerk	10	0.13	7	6
Payroll and/or Timekeeping Clerk	20	0.25	5	12
Procurement Clerk	30	0.38	0	6
Receptionist	10	0.13	6	12
Secretary	70	0.88	3	41
Typist	10	0.13	7	6
All Other Office Clerical Workers	100	1.26	na	na
Production Clerk and/or Coordinator	120	1.51	0	10
Shipping and/or Receiving Clerk	20	0.25	3	10
Stock Clerk, Stockroom, Warehouse or Storage Yard	70	0.88	1	14
All Other Plant Clerical Workers	30	0.38	na	na
Sales Occupations	20	0.25	na	na
Sales Representative, Sales Agent, and/or Sales Associate	10	0.13	7	16
All Other Sales Workers	10	0.13	na	na

1/ Excludes SIC 371 - Motor Vehicle and Motor Vehicle Equipment.

MEASURING, ANALYZING, AND CONTROLLING INSTRUMENTS;
PHOTOGRAPHIC, MEDICAL, AND OPTICAL GOODS;
WATCHES AND CLOCKS
SIC 38
April 1980

This major group of Instruments and Related Products includes establishments engaged in manufacturing instruments (including professional and scientific) for measuring, testing, analyzing, and controlling, and their associated sensors and accessories; optical instruments and lenses; surveying and drafting instruments; surgical, medical and dental instruments, equipment, and supplies; ophthalmic goods; photographic equipment and supplies; and watches and clocks.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	920	100.00	na	na
Managers and Officers	50	5.43	3	100
Professional Occupations	10	1.09	na	na
Technical Occupations	20	2.17	na	na
Service Occupations	10	1.09	na	na
Janitor, Porter, or Cleaner	10	1.09	13	44
Maintenance and Production Occupations	750	81.52	na	na
Supervisor, Nonworking	20	2.17	10	44
Maintenance Repairer, General Utility	10	1.09	7	33
Tester	20	2.17	1	33
Painter Production	10	1.09	7	33
Electrical and Electronic Assembler	230	25.00	11	33
All Other Skilled Craft and Kindred Workers	240	26.09	na	na
All Other Operatives and Semiskilled Workers	140	15.22	na	na
Laborers and Unskilled Workers	80	8.70	na	na
Clerical Occupations	70	7.61	na	na
Bookkeeper, Hand	10	1.09	8	44
Secretary	10	1.09	9	78
All Other Office Clerical Workers	30	3.26	na	na
Production Clerk and/or Coordinator	10	1.09	20	44
Stock Clerk, Stockroom, Warehouse or Storage Yard	10	1.09	12	44
Sales Occupations	10	1.09	na	na
Sales Representative, Sales Agent, and/or Sales Associate	10	1.09	14	33

MISCELLANEOUS MANUFACTURING INDUSTRIES
SIC 39
May 1980

This major group includes establishments primarily engaged in manufacturing products not classified in any other manufacturing major group. Industries in Maine in this group fall into the following categories: jewelry, silverware and plated ware; toys and amusement, sporting, and athletic goods; pens, pencils, and other office and artists' materials; costume novelties; and brooms and brushes, signs and advertising displays, hard surfaced floor coverings, and caskets.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	830	100.00	na	na
Managers and Officers	60	7.23	7	85
Professional Occupations	10	1.20	na	na
Service Occupations	10	1.20	na	na
Maintenance and Production Occupations	650	78.31	na	na
Supervisor, Nonworking	20	2.41	15	30
Maintenance Repairer, General Utility	20	2.41	20	25
Fabricator, Plastics	10	1.20	26	15
Sander, Wood	10	1.20	40	20
Painter, Production	20	2.41	31	20
Gluer and/or Cementer, Hand	10	1.20	16	15
Assembler	40	4.82	34	15
Decorator, Hand	10	1.20	20	15
All Other Skilled Craft and Kindred Workers	80	9.64	na	na
All Other Operatives and Semiskilled Workers	370	44.58	na	na
All Other Laborers and Unskilled Workers	60	7.23	na	na
Clerical Occupations	90	10.84	na	na
Bookkeeper, Hand	10	1.20	18	25
General Clerk, Office	10	1.20	13	20
Secretary	10	1.20	20	25
All Other Plant Clerical Workers	10	1.20	na	na
Production Clerk and/or Coordinator	10	1.20	16	15
Shipping Packer	20	2.41	14	35
Shipping and/or Receiving Clerk	10	1.20	14	25
All Other Plant Clerical Workers	10	1.20	na	na
Sales Occupations	10	1.20	na	na
Sales Representative, Sales Agent, and/or Sales Associate	10	1.20	26	15

NOTES ABOUT THE TABLE

Estimated Employment

If only one or two establishments reported a particular occupation, the employment for that occupation is not shown separately, but added to the appropriate "All Other" residual category. The "Total All Occupations" estimate for each industry was based on the second quarter 1980 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law.

Percent of Total Employment

The detail in the column entitled "% of Total Empl." may not add to totals due to rounding.

Relative Error

The relative error was computed only for specific occupations and not for residual categories nor for occupational groupings. If the relative error of an occupation exceeded 50 percent, the employment for that occupation was added to the residual category that was relevant to it. The relative error relates to the actual estimate before rounding. For an example of how the relative error is applied, see Accuracy of Occupational Employment Data in the METHODOLOGY.

Percent of Establishments Reporting the Occupation

The percent of establishments reporting each occupation could not be readily calculated for groups of occupations, but only for specific occupations.

Abbreviations

na - not applicable
SIC - Standard Industrial Classification, as defined in the 1972 edition of the Standard Industrial Classification Manual, prepared by the Executive Office of the President, Office of Management and Budget, Statistical Policy Division.
Empl. - Employment

Industry Coverage

All manufacturing industries were included in this Occupational Employment Statistics' survey, but the occupational employment estimates for the following SICs could not be included in this publication because this would have violated the confidentiality rule under which the data was collected, or because there was a very low response rate:

SIC 239 - Miscellaneous Fabricated Textile Products
SIC 295 - Paving and Roofing Materials
SIC 348 - Ordnance and Accessories, Except Vehicles and Guided Missiles
SIC 371 - Motor Vehicle and Motor Vehicle Equipment.

The Sample

The June 1979 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law was used as the sampling frame for the Occupational Employment Statistics (OES) Program's survey of manufacturing industries. Every unit in these industries which employed 4 or more employees in June 1979 was selected for inclusion in this survey.

This sampling frame, or universe from which the survey units were drawn, was made up of 2,029 establishments employing a total of 117,512 persons. Of these, the survey sample included 1,360 units, or 67.0 percent of the universe. These survey units employed 116,875 persons which accounted for 99.5 percent of the total universe employment.

The Survey

The survey consisted of an initial mailing and two follow-up mailings to nonrespondents. In addition, phone calls and personal visits were made to those employers whose responses were crucial for valid estimates. Usable responses were received from 1,108 units, or 81.5 percent of the original 1,360 sampled units. These usable responses represented 102,189 persons, or 87.4 percent of the total employment in the original surveyed units.

The Screening, Editing, and Estimating Procedure

Each completed questionnaire returned was edited and screened both manually and mechanically for consistency and accuracy. The resulting "clean data file" served as the basis for calculating estimates. The "clean" employer questionnaires were separated into seven size groups, the size being determined by the number of persons employed by each. The data was then tied into the universe employment for the report month of April, May, or June 1980 depending on the industry. These universe, or benchmark, figures came from the second quarter 1980 ES-202 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law. The total survey data by size class, by industry, was divided into the universe data for corresponding size and industry classes. This produced benchmark factors which were applied to the occupational data, thus accounting for any nonresponding units, and any units not included in the sample. The occupational estimates were summed across size classes to the industry totals and rounded to the nearest ten. The percent of occupational distribution for each industry was then calculated.

Accuracy of Occupational Employment Data

There are two types of errors which affect the accuracy of the estimates published here--sampling and nonsampling errors. Sampling error is a specific arithmetic measure of the precision of an estimate. It is the difference between the estimate computed from the sample data and the result that would be obtained if the same methods were used to collect

identical information from the entire population or universe with no nonresponse. The relative error entries listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. In other words, relative error means that the chances are two out of three (a 68 percent confidence level) that the results of a comparable full-scale data collection (the universe) with 100 percent response, using the same survey approach would not differ by more than the percent error shown. The chances are 19 out of 20 (a 95 percent confidence level) that the results would not differ by more than twice the percent error shown. For example, it is estimated in this report that there are 20 hand equipment cleaners employed in the food and kindred products industry with a 3 percent relative error. Thus, at a 68 percent confidence level, it is assured that the results of a full-scale count of hand equipment cleaners in this industry would not differ from this estimate by more than 7 workers (240 x .03). At a 95 percent confidence level, the universe count would not differ from the estimate by more than 6 percent of 240, or 14 workers.

The nonsampling error results from external factors in a survey rather than from the fact that a sampling technique was used. Examples of these errors are: response errors, processing errors, computational errors, etc. The possibility of these errors was recognized from the start of the survey and every effort was made to avoid them.

MAINE JOB SERVICE

"For Qualified Workers

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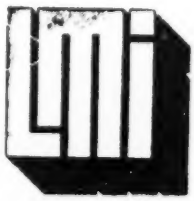

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